

# LITTELL'S LIVING AGE.

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{ From Beginning  
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OFF TRIPOLI: THURSDAY, JUNE 22, 1893.

PEACE to the dead ! Great organs sound  
and swell,

Thund'ring for us their glorious funeral  
knell :

Our hearts are torn and rent with anguish  
sore ;

Roll on, and lead us to the distant shore  
Where death is standing, silent sentinel !

Oh, piteous patience, pain we cannot quell ;  
Ours is the agony no tongue can tell.

Dumb is the deep—to voiceless heights  
we soar ;

Peace to the dead !

The heights of suffering love can but endure  
All that their country claims ; an oath they  
swore

To give her of their best, and woeful well  
Kept they their promise. We may not  
rebel

While England mourns them and her seas  
restore

Peace to the dead.

Speaker.

D. M. B.

#### THE DEATH-STROKE.

'Twas the sunny Syrian sea

Off the coast of Tripoli,

And the ironclads of England were at  
play ;

While their mimic thunder rent

With its roar the firmament,

As they tacked and they manœuvred in  
the bay :

For our navy is the pride

Of that sea without a tide,

And our home is on the deep amid the  
spray.

Something terribly amiss

In a moment ! That or this,

Man or mechanism ? Well, I do not  
know :

On the gallant flagship came,

Quick as stroke of lightning-flame

Or the giant rush of tempest, such a blow

That, her harness rent, she bowed ;

And, a mighty iron shroud,

With her admiral and crew she sank be-  
low !

Do you deem they should have died

On a fierce and reddened tide,

In the fury and the glory of the fight ?

With the ensign shot to rags,

And with striking of the flags

Of the foemen on the left and on the  
right ;

With brave rescue from the wreck,

And wild cheering on the deck,

That Britannia had not parted with her  
might ?

Be such glory what it may,

Yet I venture still to say

That these shall not lose their guerdon  
or their fame,

Though they died without a blow :

Well, the Highest—died he so ;

And our land shall shrine their memory  
and their name :

For the man who, in the host,

Is death-stricken at his post,

"It is finished" may triumphantly ex-  
claim !

There is grief for me and you :

But for Tryon and his crew

Happy future, as was honor in the past !

Though the admiral no more

May hear wind or water roar,

Though his sailors cannot battle with the  
blast, —

For, the pilot of all seas;

He will welcome souls like these,

And shall guide them to fair haven—  
land at last !

Academy.

ROBERT BROWN, JUN.

JUNE 22, 1893.

"All then precipitated themselves into the  
sea, with the exception of Vice-Admiral  
Sir George Tryon, who remained alone  
on the bridge."—(*The Times*, June 27.)

LET England mourn for him who met his  
death

Steadfast to duty, all unconsciously

Grown to a hero,—mourn for him whose  
soul,

Shrined in a noble frame, had conquered  
fear.

Let England grieve for these her gallant  
sons

Untimely gone, and grieve with them who  
weep

A loss irreparable with bitter tears.

Let England still rejoice, for now she knows  
Though time and science change the face  
of war

The stuff of English hearts they cannot  
change.

Academy.

MACKENZIE BELL.

From Blackwood's Magazine.  
THE RELIGION OF LETTERS, 1750-1850.

WHEN we seek to understand what may be called the spirit of any age in matters of religion, it is not in the sayings and writings of professed theologians and divines, and still less in the utterances of religious disputants and leaders of parties, that we shall most surely discern it, but rather in the attitude of mind of thoughtful men outside the arena of controversy — men of letters perhaps, but men of diverse interests and varied aims, who have no personal ends to be served, no wavering disciples to conciliate, no law of edification to be observed.

It is true that those who for practical purposes are most opposed to one another have frequently most in common. Times of great religious disturbance are fruitful in instances of men who would have sent one another to the stake as the almost necessary expression of an equally fervent faith and an equally deep-seated intolerance — conscience striking, as it were, the same note, though on minds of different metal. Nevertheless it is true that the temper of the religious enthusiast is that of a protest and a revolt, and it cannot be regarded as a reliable interpretation of the spirit of his times. If the history of a nation is found in its national songs, the history of its religion is written in no misleading character in dialogue and anecdote, in epistolary literature, in poetry and fiction.

At this end of the nineteenth century, when religious activities are absorbing men's minds, and to some extent usurping the place of contemplative piety, it may not be uninteresting to cast our eyes back to a period not as yet too far removed from our own — to the days of Dr. Johnson and Goldsmith, of the Coleridges and Charles Lamb, of Wordsworth and Southey, of De Quincey and Miss Austen, — a period beginning with the publication of the first portion of "The Rambler" in 1750, and ending in the religious and literary revolutions of the early decades of this present century. Glancing at some pages of biography

and fiction, and selecting some familiar figures from the crowded canvas, let us see what they can tell us of the way in which religion was regarded, since they are to some extent imbued with the same spirit — the spirit of their age. It is not from the professed theologian, as we have before said, that we have most to learn. Seminarists, students, and ministers of religion of whatever creed, must needs be more or less guided by class prejudices and governed by class interests. They may instruct, exhort, and convince, but they cannot give that unconscious impression, that casual revelation of a prevalent taste, which, like some old portrait in an antiquated dress, recalls the manners and transports us into the society of a by-gone age.

In 1760-80 Methodism had not spent its first fervor. Wesley was preaching up and down the country, and Newton and Cowper were writing their hymns at Olney. It was a flame, however, which, like a hearth fire, spread most rapidly in the open; it leapt from hamlet to hamlet, it was kindled in the hearts of cottagers and artisans. But though here and there this new religion numbered the rich and influential amongst its converts, it was for the most part despised or distrusted by the more highly educated members of the community; it affronted the orthodoxy of a political episcopate, and scandalized the sober-minded Anglicanism of the day. Evangelicalism within the Church was as yet confined to a small minority, and the prevalent religion was that of cushioned pews, didactic discourses, and comfortable divines; for the most part too well content with this present world to awaken any enthusiasm demanding personal and probably inconvenient sacrifices. Of many of the parochial clergy Crabbe probably drew a faithful portrait when he wrote of his "vicar:" —

Mild were his doctrines, and not one discourse

But gained in softness what it lost in force.  
If ever fruitful thought disturbed his breast,  
If aught of gloom that cheerful mind oppressed,

It sprang from innovation ; it was then He spake of mischief made by restless men. Habit with him was all the test of truth : It must be right ; I've done it from my youth.

Sir Walter Scott, that magician of the past, was indeed, at the opening of the nineteenth century, to fire the imagination of the young by his vivid presentations of a bygone faith ; but though no writer has more forcibly portrayed the temper of the religious enthusiast, and the powerful influence which passionate self-sacrificing devotion to a creed may exercise upon the minds and fortunes of men, he was averse (almost to the point of intolerance) to any strong manifestation of religious feeling. "I have been always careful," he writes in his diary, "to place my mind in the most tranquil posture it can assume during my private exercises of devotion." He purposely refrained from indulging his imagination on spiritual subjects, and his religion has been described as cold and conventional, but it was of a nature which could well withstand the repeated strokes of adversity. It triumphed alike over bodily weakness and failing mental powers, and found its truest expression in his last conscious words of leave-taking to Lockhart. "My dear, be a good man, be virtuous, be religious,—be a good man. Nothing else will give you any comfort when you come to lie here."

In his romances he had painted Catholicism in some of its attractive aspects, but it was with the pencil of the artist, not the pen of the disciple, and in his diary he expresses a hope that "unopposed the Catholic superstition may sink into dust." In Great Britain, at least, it would have seemed not impossible that his wish might be fulfilled ; so far as practical use was concerned, it was as yet as much a thing of the past as the ruined abbeys scattered about the country, or the discarded suits of armor which had hung upon their walls. We find, it is true, that General Tilney talked of preserving the Gothic forms of the windows in Northanger Abbey with reverential care, and Catherine Mor-

land went so far as to wish to discover painted glass and cobwebs ; but such anticipations were naturally doomed to disappointment at a time when an old oak chest was the only relic of antiquity allowed within the house, and that had been put away in a corner of the spare bedroom. Mediævalism, whether in architecture or religion, had given way to a desire for utility and convenience. Whitewash had done its work both literally and metaphorically. A sense of propriety restrained religious impulses, and the Methodist revival was condemned by contemporary divines writing from the precincts of rectories and orthodoxy, as a "spiritual influenza" which could not but be repugnant to all reasonable persons. We may well feel sure, as we turn over the voluminous pages of these long-forgotten sermons, that they were in no danger of catching the complaint. It was a common belief, not uncharacteristic of the times, that poor Cowper was driven mad by too much religion ; whereas, to those who knew him best, it was evident that it was to the consolations of religion alone he owed his intervals of peace and sanity. But a life spent in good works, in prayer and psalm-singing, would not improbably strike an unawakened conscience as inconsistent with the rational occupations of an educated man.

Hannah More, whom we are perhaps rather too apt to think of merely as a writer of tracts and a Sunday-school teacher, was at first almost as much afraid of Methodism as if she had been a bishop. She was naturally fond of society, an agreeable woman, the friend of Johnson, Garrick, Horace Walpole, and Sir Joshua Reynolds ; and she began her literary career by writing *vers de société* and dramas, brought out with success upon the stage under Garrick's supervision. It is true that, even in those days, she had scruples as to following some of the customs of the fashionable world. When there was to be music on Sunday evening, Garrick called her "a Sunday woman," and advised her to retire to her room—he would recall her when the music was



over; and when Horace Walpole was ill he sent her a book as a peace-offering, and said, "I am sorry I scolded poor Hannah More for being so religious; I hope she will forgive me." But it is clear that her religion was not of a character to cause any constraint between herself and her friends from whom she differed. She could bear to be scolded and laughed at, and could lightly wrest her critics' weapons from them in self-defence. Though so often deprived of the social life and surroundings most congenial to her, passing her summers amongst the rough miners of Cheddar and stocking-makers of Axbridge, writing tracts with unprepossessing titles, "*The Two Shoemakers*," "*Black Giles the Poacher*," etc., she yet never got out of touch with the culture and society of her day; and though Sydney Smith might find easy subjects for ridicule in many pages of her last secular literary effort of any importance, "*Cœlebs in Search of a Wife*," it went through no less than thirty editions before her death, and was eagerly read not only by those members of the fashionable world against whose habits of life and modes of thought it was principally directed, but also by influential critics and leaders of public opinion, who, many of them, authoritatively confirmed the popular verdict. That a woman with so many special gifts, and wielding so facile a pen, should give herself up to the work of reclaiming the vicious and teaching the ignorant, is a strong testimony to the force of religious principle, all the more remarkable since Hannah and her sisters were neither fanatics nor enthusiasts. Indefatigable workers, they took up the task which was being left undone with relentless energy, and they carried it on with unabated zeal and perseverance. They defended the excesses of their followers without acrimony, and blamed, without exaggeration, the apathy of those who should have been their chief supporters. "Can the possibility that a few should become enthusiastic," Hannah writes to the bishop in defence of her converts, "be justly pleaded as an argument for giving them

all up to vice and barbarism?" To do him justice, the bishop appears to have been able to contemplate the dangerous possibility which she feels honestly obliged to put before him, without alarm. Indeed, at a time when many parishes had no resident curate (though, as Hannah remarks, the livings were worth nearly £50 a year), one would have imagined that the bishops might have had greater difficulties to contend with than a superabundance of zeal.

Clerical activity was, generally speaking, at a low ebb. And yet when we go outside what may be called the "profession"—leaving out of account also those many devoted and saintly characters who pursued their calling untouched by the worldliness and Erastianism of the day—what truth and simplicity of faith, what unaffected piety, do we not find blossoming spontaneously in unexpected places! It wears indeed a sober livery which is somewhat out of date; it expresses itself in more or less sententious language, but it obtains the respect even of those least likely to put it into practice. It may be somewhat ponderous, but it is never contemptible; and we are not at all surprised to be told, for instance, that the Vicar of Wakefield did not preach to his fellow-prisoners in vain, but that "after less than six days some were penitent and all were attentive."

Religion was not, in fact, treated even by worldly people with superficial levity; it was not lightly attacked or defended, and with a certain quiet dignity it took the first place, as of right, in the minds of serious men. Not of those only especially dedicated to its service (such dedication, as we shall see further on, was often of but little account), but rather as the supreme principle acknowledged if not obeyed even by "those ingenious persons called wits," in which, as Vaughan says in his day, the kingdom "did abound." To take one familiar example: Dr. Johnson as we know him, says one of his biographers, was a man of the world, though a religious man of the world. His feelings, at once deep

and fervid, were wholly penetrated by a sense of awe and reverence which forbade any suspicion of levity, even when his mode of approaching religious subjects may strike the modern reader as somewhat grotesque. His profound constitutional melancholy was mitigated but hardly lightened by a piety which quickened his affections, regulated in some important particulars his manner of life, and brought into active operation all the latent tenderness of his nature.

It was at Oxford that, after reading Law's "Serious Call," he wrote in his diary: "This was the first occasion of my thinking in earnest of religion after I became capable of rational inquiry." But doubtless the soil was well prepared; he had a devout nature and a religious mother, and the impressions which precede rational inquiry have not infrequently a more tenacious hold upon the character than those which come after. Dr. Johnson, we may well believe, might have moralized in the nursery, and to the end of his life he retained more of the heart of the child than the spirit of youth. Indeed the period between boyhood and manhood was so clouded by misfortune and embittered by privation that he was from the first a stranger and a pilgrim, ever reaching forward to the point upon which his ambitions were centred, with no inclination to snatch at legitimate distractions or dally by the way. "Ah, sir, I was mad and violent," he said of himself, referring to his college days. "It was bitterness which they mistook for frolick. I was miserably poor, and I thought to fight my way by my literature and wit; so I disregarded all power and all authority." And when, after leaving Oxford, he sought to earn his bread by the drudgery of teaching, during the period of precarious and apparently hopeless struggle for a modest competency in Birmingham and in London, he had little opportunity to indulge in the lighter amusements or pleasures of youth. Looking back, we catch but casual glimpses of his individuality at this time, and he seems to us to have passed

almost at once from the season of raw, ungainly boyhood to the seat of the social lawgiver and moralist.

For any religious sentiment degenerating into sentimentality he had indeed, even in his youth, an especial abhorrence. He viewed it with somewhat of the same spirit in which he heard Boswell describe his sensibility to certain strains of music, as being so great as to make him ready to shed tears. "Sir," he replied, "I should never hear it if it made me such a fool." Indeed, unless his own heart were touched, he was intolerant of what he was inclined to consider an affectation of feeling in others. When Miss Monkton, for instance, declared herself affected by the pathos of Sterne's writings, he made the well-known rejoinder, "Why, that is because, dearest, you are a dunce." Yet his personal piety, and the tenderness of his nature, break through the laws of self-restraint, and give a pathetic and individual character not only to his many acts of charity, but to his private meditations and devotions.

His strong prejudices, indeed, were vented in many outbursts of religious intolerance, of which one of the most characteristic is reported by Mrs. Knowles, who declares that, on hearing a certain young lady had become a Quaker, he exclaimed, "Madam, she is an odious wench." And when a hope was expressed that he would meet with her in another world, he replied that he was not fond of meeting fools anywhere. But the outward asperities of speech could not disguise the goodness of his heart, and Edmund Burke's verdict upon him finds a ready echo in the minds of those who knew him best. "It is well if, when a man comes to die, he has nothing heavier upon his conscience than having been a little rough in his conversation."

In his writings upon religious subjects he is often didactic and commonplace, but he is never otherwise than earnest and sincere. The adjuncts of a hardly won celebrity had endangered neither the purity of his motives nor the simplicity of his faith. To the last

he religiously kept the anniversary of his wife's death as a day of self-examination and prayer, and his thoughts and supplications followed her with believing fidelity into another world. This very simplicity of heart forbids the reticence natural to more complex characters. It never occurred to him to avoid an open profession, or to lower his standard, lest it should be the occasion of surprise or contempt. Though not apt to parade either a weakness or a virtue, he was ready enough to acknowledge either the one or the other when opportunity served. When Boswell lamented that he was troubled by occasional inclinations to narrowness, there came at once the rejoinder, "Why, sir, so am I, but I do not tell it." Nor was he shy of bringing his religion to bear openly upon the ordinary transactions of life. When he found it intolerably irksome to redeem his literary pledges, he did not hesitate to pray earnestly against the sin of sloth; and whenever he received the sacrament, he made a fresh resolution against trifling away his time. When a deputation of booksellers came to treat with him on Easter eve, he confessed to them that he had a scruple about doing business on that day. When he left Mrs. Thrales's house at Streatham, of which he had been so long an inmate, he read a chapter of the Greek Testament in the library, and in a solemn prayer invoked a blessing upon the house and its inhabitants. There is something in these formal and yet simple acknowledgments of belief and dependence which strikes one as essentially unmodern. It is hardly too much to say that intimate contact with a person to whom such proceedings were so natural as to be matters of course, would be apt to cause the ordinary Christian of the present day some embarrassment. We talk a good deal upon religious subjects, but we are careful to discuss them more or less superficially. We should feel it an indelicacy to disclose our deeper feeling even to intimate friends. "Let us talk of these things," says a lawyer upon his deathbed in a work of modern fiction — "let us approach the subject as

men of the world." And though he may speak of death and hell and judgment, we find it for the most part easy to follow his advice. But though a man of the world, it would not have been possible to Dr. Johnson.

To the last his deepest feelings were concerned with things eternal. He made three requests to Sir Joshua Reynolds — that he would read the Bible, forgive a debt of thirty pounds, and never paint on Sundays. He met death, of which he had so often confessed his fear, with the calmness and courage of a Christian. He had desired the presence of a minister of God, and with characteristic energy directed the form of ministration which he desired; a curious sense of his own importance mingling with the reverence with which he approached the gate of immortality. "Pray louder, sir," he said to the clergyman — "pray louder, *or you pray in vain*;" and shortly after, he faintly uttered his last words, "God bless you, my dear," to the daughter of an old friend who knelt beside his bed. They were a touching and appropriate close to a life based upon religious principles, and abounding in human sympathies. He may have been, as Boswell says, "a majestick teacher of moral and religious wisdom;" but it is not from his writings, nor even from his authoritative speech upon such subjects, that we have most to learn, but rather from those chance revelations of a true and noble nature which are so thickly scattered upon the pages of his biography.

His religion had been throughout his life intensely personal. We may say that he was a Tory and a Churchman, but the one assertion would convey about as little definite meaning as the other to those who in these days call themselves by the same names. His conceptions of church membership would probably shock the modern Anglican as much as his charities would have affronted the notions of the modern philanthropist. To squander undeserved benefits upon the drunken and ungrateful has, to our enlightened common sense, a certain flavor of im-

morality; whilst we may well believe that the sight of the uncouth figure wandering about London streets to thrust pennies into the hands of sleeping vagrant children, would have roused the righteous indignation of the Charity Organization Society had it been in existence. But philanthropy had not as yet been systematized. Think of the excellent Vicar of Wakefield, for instance, as he describes in a few lines the daily life of an exemplary country clergyman: "The year was spent in moral or rural amusement; in visiting our rich neighbors and relieving such as were poor. We had no revolutions to fear, no fatigues to undergo! All our adventures were by the fireside, and all our migrations from the blue bed to the brown." What a placid and peaceful existence! Undisturbed by religious controversy; without any parochial machinery needing to be directed; with no temperance societies and soup-kitchens, no mothers' meetings and men's clubs, which now break in upon the leisure of the most phlegmatic parish priest. Incidentally, what a curious insight do we also obtain of the same clerical and rural life in later times from Miss Austen, herself a rector's daughter! Take the description, for example, of Charles Hayter's living in "Persuasion": "In the centre of some of the best preserves in the kingdom, surrounded by three great proprietors, each more careful and jealous than the other; and to two of the three, at least, Charles Hayter might get a special recommendation. Not that he will value it as he ought; Charles is too cool about sporting. That's the worst of him." It is true that the clergy could not always avoid professional calls, for "even the clergyman," says Mrs. Clay — "even the clergyman, you know, is obliged to go into infected rooms, and expose his health and looks to all the injury of a poisonous atmosphere;" but it would appear as if such unpleasant avocations occupied but a small portion of their time. Henry Tilney certainly did not let them stand in the way of more agreeable engagements, and though he

was reluctantly compelled to interrupt his courtship to pass a Sunday at his living, we are not surprised to find that the old frontispiece to "Northanger Abbey" represents him as rushing up the stairs brandishing a riding-whip, in a costume which is a mixture of the brigand and the jockey. Miss Austen, again, would seem to have had no fault to find with the way in which Mr. Elton passed his mornings in a lady's drawing-room, reading poetry and making charades, provided only he had been in love with the right young lady.

Yet though the clerical standard was in many instances so low, the general tone in regard to the highest subjects was one of grave responsibility and unimpassioned but serious interest. It was the key-note both of Coleridge's mysticism and Wordsworth's philosophy. And without entering into those wide subjects, which are both above and beyond our scope, let us take at hazard one or two indications of a like spirit animating a brother poet. Think of Southey with his vivid imagination and all the visions of youth before him, and the fever of authorship working in his brain; Southey, who already as a schoolboy had some idea of continuing Ovid's "Metamorphoses," and planned six books to complete the "Faery Queen;" Southey, already at nineteen the author of elegies and heroic epistles, and of "Joan of Arc," an epic in twelve books, written in six weeks; with a high and yet withal modest conviction of his poetic mission and literary gifts; and still, when there is a question of his entering the Church of England ministry, he cries, "God knows, I would exchange every intellectual gift which he has blessed me with, for implicit faith to have been able to do this." There is an impressive deliberation about such faithful utterances which one would rather have supposed to be the result of a judgment sobered by experience, a fancy chastened by disappointment. When Coleridge, writing a little later of a friend's death, observes that in consequence, "We are all more reli-

gious than we were. God be ever praised for all things," — we feel as if the presence of death were hardly needed to deepen the spiritual influences which made the unseen world to them an ever-present reality. Wordsworth's "We are Seven" was but a familiar illustration of their creed. "I have five children," Southey wrote in 1809, "three of them at home, and two of them under my mother's care in heaven." And already at thirty-five he could write, "No man can be better contented with his lot. My paths are paths of pleasantness. Still the instability of human happiness is ever before my eyes; I long for the certain and the permanent." And at forty, "I doubt whether the strictest Carthusian has the thought of death more habitually in his mind."

We might indeed say that these are merely the expressions of a mind as unusually rich in pure spiritual perceptions as in high poetic gifts; nevertheless there is an atmosphere, moral and religious, which insensibly affects persons of very different orders and diverse or inferior gifts. It is not in the nature of a violent revolutionary awakening, and it has a more limited influence, but within a slowly widening circle it does a work of a deeper and more permanent character. When we read of little Hartley Coleridge, for instance, calling himself, whilst still in the nursery, "a boy of a very religious turn," we feel as if there must have been some unseen springs at work, or some hereditary predisposition, to account for this unusual precocity; especially when we hear that with his nurse by his side he prayed extempore every night — not, we may observe, until he was safely and comfortably tucked up in his bed, thus curiously foreshadowing at once the piety and the self-indulgence of his later years. What unfulfilled promises cluster about his life from the moment of his birth, when, though his mother called him "an ugly red thing," his father took him in his arms and said, "There is no sweeter baby anywhere than this!" Happy perhaps if it had been with him

as with those infant twins of whom he afterwards wrote: —

Their very cradle was the hopeful grave,  
God only made them for his Christ to save.

Poor Hartley! with his unstable will, his recurrent and unavailing remorse, perhaps because of his very imperfections, he lets us, more intimately than a wiser or a better man might have done, into the secrets of his spiritual life. What a pathetic interest attaches to his hopes and his failures! Wasted by disease, pursued by remorse, at last relinquishing the faith with which it is perhaps most dangerous to part — the belief in his own possibilities for good — how vividly he paints his own sense of unworthiness in the well-known lines on the fly-leaf of one of the books of his boyhood: —

When I received this volume small,  
My years were barely seventeen,  
When it was hoped I should be all  
Which once, alas! I might have been.

And now my years are thirty-five,  
And every mother hopes her lamb  
And every happy child alive,  
May never be what now I am.

There is no trace of the popular self-delusion of the morbid penitent. His life is, in his own eyes, an unsightly ruin of "things incomplete and purposes betrayed;" he can see no beauty in the wild flowers which have sprung up about it. In his boyhood he had already written of himself as fearing to nourish "a self-love already too strong, and the worst of self-love, a respect for the faults of self;" but we may truly say it was an error into which he never fell among all the melancholy failings of later years. Indeed, even in his youth he seemed occasionally to reach a vantage-ground, some spot of solid earth on which to plant his wavering feet, from whence he could look down upon the temptations and lapses of his past with a severe but dispassionate judgment. "You must be aware," he writes to his father upon one of these occasions, "that the pain arising from the contemplation of a life misspent is often the cause of continuance in mis-



doing." And there is a flavor of matured wisdom in the observation which ill accords with our preconceived ideas of an ungoverned youth.

There is, indeed, an elaborate formality about the religious aspirations of these young people which is part of the manners of a bygone age—an age in which, we must remember, people did not find it unnatural to make love in faultless English and well-turned phrases. Passion did not walk abroad in tatters; in public, at least, it most often wore a correct and sober habit, which sometimes had the air of deliberate disguise. So when Southey writes, "I shall unite myself to a woman whom I have long esteemed as a sister, and for whom I now indulge a warmer sentiment," we can hardly believe that these are the words of an undergraduate lover; and when the little De Quincey, fretting against the tedium and restraints of school, writes to ask how a person can be happy "in a situation which deprives him of health, of society, of amusement, of liberty, of congeniality of pursuits," we feel as if some middle-aged and justly dissatisfied scholar had crept into his school-boy jacket and taken up the pen. And in matters of religion there is the same tone of just and deliberate conviction, of prudence and foresight, and of well-balanced judgments and firmly established principles—a tone of somewhat high-flown morality, savoring strongly of the pulpit, an elevated position in which Hartley Coleridge, for instance, seems somewhat out of place. But if practice in some respects fell lamentably short, at least they did not lower their standard so as to bring it into harmony with personal derelictions. And in Hartley we see perhaps, as plainly as we are ever permitted to see in another human being, the dual nature in perpetual conflict. He shows us his best and his worst—his high aspirations, his disastrous falls, his sins and his remorse. And through it all we feel the curious attractiveness of a character which, in spite of its inherent weakness, awakens pity but not contempt. The imaginative child of whom

Wordsworth wrote in his lines "To H. C., six years old," beginning,—

O thou whose fancies from afar are brought,  
still survives in the man who to the last  
cherished a faith in goodness, a love  
for nature, and a tenderness of heart  
which better men might well have en-  
vied. Here is a characteristic memorandum, dated 1827, at the end of some college note-book:—

It was begun [he writes] when I stood high in the world, proud but not glad of academic honors, with all the material, but, alas! without the moral of happiness. Its conclusion finds me a beggar, bankrupt in estate, in love, in friendship, and, worst of all, in self-esteem. Yet the faith with which it was commenced has ripened into certainty, and the sad knowledge of what I am, feelingly informs me what I might have been.

This day, too, I beheld the first snow-drop, the earliest primrose. Nature begins to revive, and why should not I begin a new year from this day?

One may wish, indeed, that his good resolutions had rested upon a surer foundation than the blossoming of a primrose, but at least the fancy recalls the fair visions of his boyhood, and shows a mind still open to the sacred impressions of the spring.

He never sought to justify his own derelictions from duty by a lowering of the Christian standard, nor would he shut himself off from religious ministrations and observances lest he should incur the censure of the Pharisee or lay himself open to any suspicion of hypocrisy. He did not hesitate to give free expression to his opinions upon religious questions, and held strong views upon Erastianism and other church questions of the day.

His Bible and Prayer-book [his brother writes] the same which he possessed when a boy, and which he took with him to church as long as he lived, bear the marks of careful and habitual use. The Book of Job, of Isaiah, and the Psalms in particular, show the traces of constant perusal.

Here, for instance, is his own account of a summer Sunday as it lies before us jotted down in his journal:—



And now the day of rest draws to a close. The weather has kept the Sabbath. The morning was the very perfection of stillness. No gay sunshine, no clamorous wind, no drenching rain; the sky wore one sober grey veil, and the mist hung upon the hills as if it paused on its journey; the vapors were gathered up; no light detachments foraged along the mountain-sides to catch the flying sunbeams, but the thick masses formed an even line like an army drawn up for a decisive engagement, and only halting till the truce of God was passed. . . . The vale was clad in deepest green, and fancifully resembled the face of one who is calm and patient after long weeping. . . . Some time before nine I arose, found the twins, two dear innocent little girls whose shining faces are a far better refutation of Calvinism than Dr. Tomline's, in their blue stuff frocks (as pretty a dress as a little rustic can wear), prepared for the Ambleside rush-bearing. Found also my own breakfast ready—read part of the "Life of Barry"—deliberated whether to go to church—saw J. W., hailed him from the window—determined to hear him—set forth with Bible and Prayer-book—called into the Sunday-school, found the two nuns surrounded with good little men and women, bright with the beauty of benevolence—how sweet even a plain woman can look when engaged unaffectedly in doing good!—found myself thirsty—called at the Red Lion and took a sober potation of John Barleycorn—got into church (*mirabile dictu*) in time. John does duty very respectably. First lesson, David's politic getting rid of Saul's family; second, a truly heavenly chapter, 13th of John, admirably calculated to remove the unsafe impressions of the first. Singing rather out of tune. Resolved to write a poetical address to the Supreme Being. . . . Clouds dispersed with the congregation. . . . Drank glass of wine with F. Corrected my political views of the beer-tax. . . . Now will I read a chapter, smoke a pipe, and so to bed, for it is Monday morning.

What a curious medley we have here! He begins his day like a country curate, with his Bible and Prayer-book and a visit to the Sunday-school. Then comes the call at the Red Lion, which, however, does not hinder him from pursuing his way to church. Nor is his attendance upon the service a perfunctory one. He is affected by the

heavenly beauty of the second lesson, and determines to write a religious poem. After which he goes home to a glass of wine with F., feels himself fitted to correct his views upon the beer-tax, and finally brings his Sunday to an end with a chapter of the Bible and a pipe on Monday morning.

His religious inclinations, indeed, at one time had been so strong that he thought of taking holy orders; but fortunately, he too plainly recognized the force of evil habits and his own infirmity of purpose to venture upon such a step, and some ten years afterwards he wrote: "Every man who enters the ministry without a call, becomes a worse man than he would have been had he remained a layman. Thank God, I have not that sin to answer for." But he never ceased to take an interest in the religious movements of his day, nor did he affect an indifference to matters from which the life he was leading in his remote cottage between Ambleside and Grasmere might well have estranged him. It is interesting to find him writing of Frederick Faber's sermon in September, 1837:—

He is High Church to the very verge of Romanism. I have heard him but once; he is evidently a man of genius. He has the pale face, wild eye, and self-oblivious manner which evinces sincere enthusiasm. He is not the man to fling brimstone at the heads of an unoffending congregation, and then go and dine with the worst sinner that will give him a good feed. Of his sincerity there can be no doubt. Of his Christian sanity I have my suspicions.

But though he might dissent, he never sought to depreciate those from whom he differed, and when speaking of Newman, Keble, and Pusey, he observed:

I do not join the vulgar pack in hunting down these poor Oxford divines. I reverence them as I reverence the noble and the honest. Their aim is not preferment, it is not popularity, but what they look upon as truth, and truth too for truth's sake. They court not the great, and what is better still, they court not the many.

There is no need to dwell upon the darker side of the picture; the many shortcomings, the repeated lapses of

this erring child of genius, are too well known to need comment ; but even in the unhappy seasons when, shunning the society of those who loved him, he went forth as a wanderer amongst the hills, he never failed to breathe something of their majestic spirit — the spirit of noble aims and high aspirations, the spirit which found a voice in the poetry of the Lakes. And it is surely not only an indication of individual character but of the religious temper of the day, to find a life in many respects so faulty, so rich in reverence and frequent in prayer, so full of that deep humility and affectionate piety which we are apt to regard as the attributes of the saint rather than of the sinner.

We cannot wonder that those who were most painfully sensible of his failings loved him best, and that his old friend, the aged poet Wordsworth, himself selected his grave close by that of his daughter, where a place was also reserved for himself and Mrs. Wordsworth, in Grasmere churchyard. "Let him lie by us," he said. "He would have wished it."

In selecting another familiar figure from the group of which Hartley Coleridge was a younger member, we turn from Grasmere with its many associations, to Christ's Hospital and Newgate Street, to the India House and the Templars' Walk, to the suburbs of Islington and Enfield, and to the corner of the Edmonton graveyard where Charles Lamb lies buried ; and the contrast of the bustling streets of the town with the shadowed valley and the lonely mountain-side, to some extent typifies the difference between the humorist and the fugitive poet, the man of the world and the recluse.

Charles Lamb, indeed, was all his life at heart a citizen. Even in writing to Wordsworth he is not afraid to confess :—

I don't now care if I never see a mountain in my life. I have passed all my days in London, until I have found as many and intense local attachments as any of you mountaineers can have done with dead nature. The lighted shops of the Strand

and Fleet Street, the innumerable trades, tradesmen, and customers, coaches, wagons, play-houses, all the bustle and wickedness round about Covent Garden, the watchmen, drunken scenes, rattles — life awake, if you awake, at all hours of the night ; the impossibility of being dull in Fleet Street ; the crowds, the very dirt and mud, the sun shining upon houses and pavement, the fruit-shops, the old bookstalls, parsons cheapening books, London itself a pantomime and a masquerade, — all these things work themselves into my mind and feed me without a power of satiating me. The wonder of these sights impels me into night walks about her crowded streets, and *I often shed tears in the motley Strand from fulness of joy at so much life.*

It is true that all this is not incompatible with the most affectionate regard for far other scenes associated with the dearest memories of his earlier years, the Hertfordshire lanes and hedgerows, Amwell and Blakesware and Mackery End ; to these he looks back with regretful tenderness, as with his faithful and graceful pen he once more paints for us the haunts of his boyhood. He has an appreciation of the "pretty pastoral walks," and of what Nathaniel Hawthorne calls the "decorous restraint" of an English landscape ; but it is a cultured appreciation, perhaps more natural to the foreigner than the native. Many a "green thought in a green shade" strays across his pages ; as Hazlitt said, "his affections revert to and settle upon the past ; but even this must have something local and personal in it to interest him deeply and thoroughly."

It was a temper of mind to which the vivid realization of the far future and of the unseen was most difficult. In both Dr. Johnson and Hartley Coleridge religion seems to strike a deeper note ; in the one of awe and reverence, in the other of an intermittent but lifelong penitence. In Charles Lamb there is more of the modern spirit, he takes life and the world to come more lightly. Yet his seasons of self-reproach and his struggles against his besetting sin were born of a higher feeling than the fear to lose the world's respect or his own. In spite of the

divergencies between him and Hartley Coleridge, which at first sight strike us so forcibly, we shall discover a very curious similarity in their way of approaching religious subjects. It is not a question of formulated beliefs, of creeds and dogmas — upon such points they would have differed widely enough; the likeness goes deeper into regions of the conscience and the heart, producing those sympathies which are the result of temperament rather than of doctrine, and much less easily defined. With both the affections played a large part in the field of spiritual effort and experience; each had a true fellow-feeling, born of their own infirmities, for the poor, the sinful, the unfortunate, and in each a sincere penitence was, in one respect at least, singularly fruitless in real amendment of life. In Lamb's case, indeed, repentance was hardly tinged by remorse, and his humor, like a wandering sunbeam, lighted up every incident in his history and every phase of his character; but at times it served, as if by contrast, to deepen the shadows.

The Unitarianism of his early years, was rather, as has been said, "the accident of education than the result of conviction." In later life he rarely spoke upon doctrinal subjects.

Such religion as I have had [he writes of himself] has always acted on me more by way of sentiment than argumentative process. I am for "comprehension," as divines call it [he wrote in 1828]; but so as that the Church go a good deal more than half-way over to the silent Meeting-house. I have ever said that the Quakers are the only *professors* of Christianity as I read it in the Evangelists. I say *professors*; marry, as to practice, with their gaudy hot types and poetical vanities, they are much as one of the sinful.

But the sober and contemplative religion in which he had been brought up had left its impress, not only upon his inner spiritual life, but upon his mode of giving it expression. His early letters to Coleridge abound in pious reflections which to our modern ideas seem hardly natural in so young a man. At the age of twenty-one he

writes: "I sometimes wish to induce a religious turn of mind, but habits are stubborn things, and my religious fervors are confined to some fleeting moments of occasional solitary devotion." Here again is an appreciative verdict upon Walton's "Complete Angler" which one might hardly have expected from one of his years: "It breathes the very spirit of innocence, purity, and simplicity of heart; there are many choice old verses interspersed in it; it would sweeten a man's temper at any time to read it; it would Christianize every discordant passion; pray make yourself acquainted with it."

Already the criticism foreshadows the delicacy of his own style, his aim being well exemplified in a letter of about the same date: "Cultivate simplicity, Coleridge, or rather, I should say, banish elaborateness; for simplicity springs spontaneous from the heart, and carries into daylight with it its own modest buds, and genuine sweet and clear flowers of expression. I allow no hotbeds in the garden of Parnassus."

If it was true of his writings, it was still more true of his religion. The theological hotbed was above all an abomination to him; but through all the twisted strands of his life, and most closely intertwined with its friendships and affections, runs the single thread of a personal trust and faith in God, like the instinctive clinging of a child to its father. "God love you and yours." "God love us all, and may he continue to be the Father and the Friend of the whole human race." "God love you, Coleridge!" Such are some ordinary endings of his familiar letters; and if it were so in cases of casual intimacy, still more did the religious sentiment guide and govern the tender and absorbing passion of his life—his lifelong devotion to his sister. "God love her, may we never love each other less;" and through all the strain of drudgery and disappointment, of failing health and clouded intellect, that prayer at least was fully granted.

To his peculiar love for what was

near and familiar—for the haunts of his boyhood, and a lingering fondness even for his desk at the India House, from which he had longed to be released—he joined a deep sense of the obligations, or what he calls the “kind charities of relationship.” “What would I not give,” he writes of his mother, “to call her back to earth for *one* day; on my knees to ask her pardon for all those little asperities of temper which from time to time have given her gentle spirit pain? and the day, my friend, I trust will come; there will be time enough for kind offices of love if heaven’s eternal year be ours.” It is very characteristic of Lamb to feel as if the family circle in heaven would not be broken, but that the demands of filial affection should there be met and answered; characteristic of the man who upon the threshold of a literary career, and with all the possibilities and the dreams of youth before him, could write: “I am wedded, Coleridge, to the fortunes of my sister and my poor old father.”

His affection for his friends was hardly less enduring. Amid all his pleasantly he wings no shaft which bears a sting in their direction; the one exception is in a letter to Southey, whom he considered had condemned him unjustly in a recent paper on infidelity. This letter is indeed full of a subtle fire of indignation not unmixed with bitterness, and there is an unwonted venom in his wit as he writes in self-defence under a sense of the injustice done to him:—

If in either of these papers, or elsewhere, I have been betrayed into some levities not affronting the sanctuary, but glancing perhaps at some of the outskirts and extreme edges, the debatable land between the holy and profane regions; . . . if I have sported within the purlieus of serious matter,—it was, I dare say, a humor—be not startled, sir—which I have unwittingly derived from yourself. You have all your life been making a jest of the devil. . . . I acquit you of intentional irreverence; but indeed you have made wonderfully free with, and been mighty pleasant upon, the popular idea and attributes of him. . . . You have flattered him in prose, you have chanted

him in goodly odes. You have been his jester, volunteer laureate, and self-elected court poet to Beelzebub.

This is carrying the war into the enemy’s country with a vengeance. It is hard upon Southey, whose temperate comment was: “I was very much surprised and grieved, because I knew how much he would condemn himself.” And he was right. He proposed, being in London during the following month, to pay the Lambs a visit, and received the following eager and penitent acknowledgment, tendered with a generosity as free as his own:—

The kindness of your note has melted away the mist which was upon me. I have been fighting against a shadow. . . . I wish both magazine and review at the bottom of the sea. I shall be ashamed to see you. . . . My guardian angel was absent at the time. . . .—Your penitent

C. LAMB.

It is certainly remarkable to see how, in all his writings, a sense of the fitness of things keeps his humor in check. The present generation may often fail to see the point of the jokes which were so keenly relished by his contemporaries, but they cannot condemn them as indelicate or profane. Though his laughter may sometimes be ill-timed, there is no ribaldry in it. “I am going to stand godfather,” he writes. “I don’t like the business. I cannot muster up decorum for these occasions. I shall certainly disgrace the font. I was at Hazlitt’s marriage, and had like to have been turned out several times during the ceremony. Anything awful makes me laugh. I misbehaved once at a funeral.” And yet we have a notion that his conduct, however reprehensible, arose rather from a sense of the inadequate representation in the drama of life of ideas which to him truly were full of awe, than from any mere levity of mind. It is true that his humor has exorcised the spirit of profound seriousness which we find in some of his literary contemporaries—a spirit of which we catch glimpses even in the weird dreams and rapt visions of De Quincey; here again it is observable that neither in riotous excess nor

hideous nightmare does the opium-eater conjure up images dishonoring to God and purity. Take a little sentence, for instance, out of one of the dreams which he has himself recorded :

I thought it was a Sunday morning in May, that it was Easter Sunday, and yet very early in the morning. . . . I said aloud (as I thought) to myself : "It yet wants much of sunrise, and it is Easter Sunday, and that is the day on which they celebrate the first-fruits of the Resurrection. I will walk abroad, old griefs shall be forgotten ; for the air is cool and still, and the hills are high, and stretch away to heaven ; and the forest-glades are as quiet as the churchyard ; and with the dew I can wash the fever from my brow, and then I shall be unhappy no longer.

What a fragrance there is in the picture, an innocent fragrance as of dewy lawns and early blossoms, but hardly powerful enough, we might have feared, to overpower the noxious fumes of his drugged imagination ! It reminds one of Charles Lamb's own description of an empty village church : —

Wouldst thou know the beauty of holiness ? Go alone on some week day, borrowing the keys of good Master Sexton, traverse the cool aisles of some country church, think of the piety that has kneeled there ; the congregations, old and young, that have found consolation there ; the meek pastor, the docile parishioner. With no disturbing emotions, no cross conflicting comparisons, drink in the tranquillity of the place till thou thyself become as fixed and motionless as the marble effigies that kneel and weep around thee.

It is very remarkable, we think, to see what a strong hold such tranquil scenes and memories had upon the literary men of this period. "*Eccovi !* look at him," cried Carlyle, when he saw De Quincey ; "this child has been in hell." And he was right ; nevertheless the ghastly experiences which he had gained there had not obliterated the peaceful images still treasured in the recesses of his bewildered brain ; nor had the horrors of physical and mental disease banished the pure emotions and sympathies which such memories evoked. And the reverence for innocence and infancy which breathes

in the writings of such different men as De Quincey and Southey, Charles Lamb and Hartley Coleridge, is no fictitious sentiment assumed for the purposes of art. It had been put to a severe practical test which many genuine lovers of children might not have withstood. The necessities of small households and straitened means had brought them into close and daily contact with the nursery. Southey wrote his history of Portugal keeping watch at the same time over the baby seated in her chair at his side. De Quincey, at an age when young men take little notice of children, was the favorite companion of the little Wordsworths, and when little Kate died his grief passed all the limits of ordinary mourning. In after years his love for his own children — gentle, diffident, almost deferential in its expression — was joined to a feminine and tender regard for their needs and pleasures. At any moment he would break off from his writing at the cry of a child up-stairs, and carry it down to sit in his armchair and be comforted. Nor was such tenderness merely parental. Like Wordsworth's love for nature, it was part of his religion ; and it was joined to that love for the weak and helpless which is a characteristic note of the Christian creed. It is one of the most lovable traits in these men of letters. It inspired some of their most felicitous writings ; it irradiated even the black abyss in which De Quincey was so often plunged ; it constituted the deep, though in later years, after death had visited it, the trembling happiness of Southey's home ; and it made Charles Lamb in his old age once more the playfellow of his "dream children."

Childhood was an Eden to which in fancy they wandered back, and to which the fruits of the tree of knowledge had brought no enchantment.

It was with the same sympathetic and serious and tranquil spirit that they regarded existing religious systems, and the doctrines upon which they were founded. They may ponder and discuss a question, but there is no feverish restlessness in the inquiry. De Quincey



lived in a mystery which he had no desire to solve; as his biographer affirms he went through the world "wrapt in a general religious wonder." He looked upon Christianity as the one divine revelation, and no Biblical criticism had power to trouble his faith. "The Bible," he says, putting aside all scientific objections — "the Bible must not teach anything that man can teach himself." Southey, slowly but surely working his way onwards from the Unitarianism of his youth, has, as Hazlitt said, "missed his way in Utopia and found it in Old Sarum." Charles Lamb touches upon such matters in a lighter vein; even when he venerates an idea he has a natural disregard for its outward forms and symbols, yet he has no desire to controvert or disturb existing beliefs. "Credulity," he says, "is a man's weakness but a child's strength," and he is quite ready to extend to it that affectionate toleration which he has for childish things. But the great realities of life and death, and love beyond the grave, are more and more to him as the world grows emptier, and friends never to be replaced are taken from him. "Coleridge is dead," he would say irrelevantly in the midst of conversation, as if the cry of his heart must make itself heard before he could go on to speak of other things. The calamities he had suffered haunted and oppressed his solitary hours. In the "surfeit of time" of which he speaks at Enfield, he is sometimes "serious to sinking almost;" and though he rises buoyant, by the sweetness of his nature and the energy of his spirit, above the troublesome waters, there is ever a pathos underlying his merriest moods and his wittiest sayings, born of the tragic cloud which hung over his dearest affections and his home. To the last his wandering thoughts found a resting-place in the eternal verities; and he who so unaffectedly loved his sister whom he had seen, has found, we may humbly trust, the Giver and Object of all love.

In the fly-leaf of his copy of Lamb's "Life and Letters" there is a note in Sir Henry Taylor's handwriting.

Wordsworth, at the instance of Charles Lamb's friends, wrote his epitaph. As he originally wrote it the first line was,

To the dear memory of a frail good man.

The more foolish of Lamb's friends objected to the word "frail," and it was rewritten without that word — the only word in it which was individualizing.

At this distance of time we are wiser. We no longer fear to dishonor the dead by the remembrance of human weakness, but are well content to leave them to that merciful judgment which, reversing so many earthly verdicts, has lifted them

Above the world and sped the passing life  
Across the waters to the land of rest.

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From Macmillan's Magazine.

#### THE FETISH-MOUNTAIN OF KROBO.

THE sun had just disappeared behind the fringe of fan-palms on the horizon, and the afterglow was throwing a crimson light over the placid waters of one of the broad lagoons which skirt the seaboard of the West African Gold Coast. I had been travelling for some hours in a long, narrow Adangbe canoe, and was very tired of being cooped up in the cranky craft. The village which I had decided to sleep in was still miles away on the opposite side of the broad, shallow stretch of water; and yet, though tired, hungry, and cramped, there was a restful sensation of calm enveloping the scene which reconciled me in some degree to this tedious mode of travelling.

The short tropical twilight was fast fading into darkness, and the bright blue sky toning down into the deepest azure, out of whose depths peered the pale light of the glimmering stars. The placid waste of waters was only gently ruffled now and then by the ugly black snout of some sleepy alligator, slowly rising to the surface for a breath of the cool evening breeze.

As I lazily lolled in one end of the canoe, I could not help admiring the fine proportions of the stalwart native who was standing in the stern, slowly propelling the uncouth craft on its slug-



gish way. His clean-shaped muscular limbs stood out in clear black silhouette against the colors of the sunset, as he leisurely laid his weight on the long, straight pole, or drew it gently out of the muddy bottom. He eased his labors by softly singing a low rhythmical chant, which blended delightfully with the calm repose of the scene. Like all African music it was in a decidedly minor key, and the quaint rhythm of the Adangbe words rose and fell in a gentle cadence, which at that moment seemed to me the perfection of poetry. The song was undeniably long, however, and presently I fell to wondering what its subject could be. Was it an epic by some poet of his tribe, telling of mighty deeds in the chase, and of heroic fights with hereditary enemies? No,—that gentle, plaintive air would surely better fit some tender love-chant, and the man was probably singing the charms of some far away dusky beauty, whose soft black eyes had set his heart aflame.

My curiosity was aroused; I would find out the theme of his song from my black boy, who was sprawling on some packages in the bottom of the canoe. "Sam, you savez that man language?" "Yessah!" "Well,—what he singing about?" "He cussin, sah!" "What!" I exclaimed. "Yessah! he da cuss *too* bad. He be one Popo man, sah, and he say that one Kokofoo man make some bad palaver wid him, so he da cuss him." "Do you mean he is calling him names?" "Yessah! He cussing de man fader, an' de man moder, and he grandfader, and he grandmoder, and all he moder and fader before him, back, back, back, long time. He cuss plenty, massa!"

Alas, how was my poetic image cast down! So that soft rhythmic chant was nothing but a long string of curses, and what I had taken to be the amorous outpourings of an untutored poetic nature was, on the contrary, a collection of atrocious expressions which would probably cause even a Billingsgate fish-fag to turn pale with envy.

The discovery caused an unpleasant revulsion of feeling. The melody of

his interminable song seemed all to have suddenly fled, leaving nought behind but an uncouth, unintelligible jargon. The soft twilight was now almost at an end, and a cold, damp breeze was creeping over the sluggish waters, hinting at miasma and all sorts of malarial horrors. All the poetry of the scene had vanished. I felt cross and tired and hungry, and roughly ordered my boy to tell the man to stop his ugly noise and to pole as if he intended to put me ashore sometime before the sun rose again. The cold, unhealthy dews of the African night were now falling like a cloud, and a white mist of vapor gently rising from the almost stagnant waters, making me long to be safe on land and sheltered from these poisonous exhalations, even in the stuffy native hut which I expected to find on landing.

At length I arrived at my destination, a small crowded village of mud huts, and there I found the two other white men who were to go with me on the morrow to pay a visit to the Fetish-Mountain of Krobo.

After a night's struggle with Brobdignagian mosquitoes and other abominations, we made an early start, and by seven o'clock our procession of hammocks, bearers, and carriers was wending its serpentine way through the narrow bush-track which led to our destination. Hammock-travelling has an undeniably luxurious smack about it; but unfortunately there the luxury begins and ends. To the uninitiated, who have never been forced to use this form of locomotion, it may suggest ideas of silken cushions, of embroidered baldaquins, of waving ostrich-feather fans, and of gorgeous fly-brushes gently waved by graceful, if dusky, slaves. The reality, however, is prosaic enough; and the idea of hammock-travelling suggests to the unhappy official or trader of the Gold Coast, who has been forced to make weary journeys in this manner, visions of hard canvas, unlimited shaking and jolting, dust and flies, besides a dozen other discomforts inseparable from a thermometer standing ninety degrees in the

shade. On the West Coast of Africa, however, where horses seldom thrive, hammocks are indispensable, and supply the only means of making journeys of any length.

The Gold Coast, as every one knows, is a British possession on the seaboard of the Gulf of Guinea, and labors under a reputation for extreme unhealthiness, which in many cases is not wholly deserved. Liberal allowance as regards pay and leave of absence induce a good many young men to enter the service of the colony, and they, together with a certain number of traders and missionaries, form the only civilized population of the extensive country over which a Protectorate has been declared. To those interested in folk-lore and ethnography the Gold Coast offers a grand field for investigation, the inhabitants having remained for the most part in the same condition of primitive simplicity in which they were found by the first European visitors to the coast four or five centuries ago. Despite a tolerable supply of missionaries of all denominations, Fetishism flourishes almost as vigorously as ever; and if its horrible rites have been rigorously suppressed in those territories which recognize British authority, there are still numbers of curious customs and ceremonies practised which are extremely interesting as illustrating the peculiar ideas of the people.

I was particularly anxious to visit the Krobo mountain, having been told that it was at certain times of the year the scene of many curious customs which might be well worth observing. One of the most interesting of all, the *Otufo*, or "Tail-girl" custom, was about to be celebrated, and I was on my way to the Krobo hill at the opening of this paper. This hill is about sixty miles from the seacoast, and a little to the westward of the Volta River which flows northward right through the Protectorate.

After two or three hours' travelling we left the thick undergrowth of bush, through which we had been going, and emerged on the Krobo plain, a fine undulating stretch of prairie, covered with short, fresh, green grass and

spreading away to the north, where the horizon is bounded by the distant range of the Akwapim Hills. In the middle of the plain rises the Fetish-Mountain, standing out like an island in a sea of freshest green. In shape and size much resembling the rock of Gibraltar, it forms a conspicuous landmark for many miles around.

Although still three or four miles away we could distinguish faint sounds of an almost incessant discharge of musketry, while clouds of smoke curled in the still air around the sides of the mountain. Passing through a village our party was reinforced by three more white men, consisting of the commissioner of the district and two other officials who were making a tour of inspection in that part of the Protectorate. We now formed quite an imposing procession, and the string of six hammocks, with their bearers, carriers, and other attendants, stretched over quite a long distance of path. The villages on all sides were almost deserted, as nearly the whole population of the district had congregated on the Fetish-Mountain. Now and again we met small parties of natives, evidently on their way to the scene; all the men carrying long, rusty, flint-lock guns, with their powder in small gourds attached to their waists, while the women marched along behind, carrying on their heads huge black pots full of palm-wine. It was evidently a general holiday, and all were decked in their brightest cloths and beads. A curious and not unpleasant chant, in a very minor key, was lustily kept up by these people as they marched, and the same strange refrain could be heard on all sides echoing in the distance, until the tune rang in our ears with annoying persistence.

On commencing the ascent of the mountain our path for the first mile or so rose in a leisurely zigzag fashion; but soon hammocks were no longer practicable, and despite the great heat every man had to get out and walk. The side of the mountain which we were ascending was almost bare of vegetation, save where a low under-

growth of scrub hedged in the path, without affording the slightest shelter from the perpendicular rays of the sun. In many places the track was nothing more than a narrow ledge or fissure on the face of precipitous cliffs, and at short intervals huge boulders of iron-stone could be seen poised on the very edges of the precipices, ready to be hurled by a very slight effort upon any body of assailants who might be rash enough to attempt to force a passage up the mountain. These immense masses of stone had probably been gradually dislodged from their softer surrounding, and were so undermined that it looked as if a push from the hand of a child could send the mighty masses crashing down the mountain-sides like some terrible avalanche.

About two centuries ago the ancestors of the present tribe of Kroboes were driven, for some reason or other, from their own country further south. On arriving in the neighborhood of the mountain they overcame the original inhabitants and at once settled themselves on the hill. Finding themselves in possession of a natural fortress of the strongest description, they were enabled to set at defiance the surrounding tribes and from their impregnable place of refuge made such constant raids on the natives of the plain that in a short time they imposed their rule over a large stretch of the surrounding country. At present they are supposed to number some forty thousand, and owing to their savage and warlike character are greatly feared by neighboring tribes of much greater numerical strength. They now form part of the British Protectorate, and owing to the increased security of life and property have settled themselves in large villages on the plains, where they possess enormous groves of the palms which produce the oil of commerce. They have divided themselves into two sections, under two kings, one ruling over eastern, the other over western Krobo. He of western Krobo is subordinate to the other, and the two dominions form a fairly united body. The mountain, however, is still looked upon

by them as the heart and centre of their territory, and a place of refuge in times of danger. It is the great cemetery and burial-ground for the whole tribe; and at certain seasons of the year the entire population of the Krobo country resorts to it for the celebration of certain Fetish customs and ceremonies.

The mountain, however, is far from being usually deserted; on the contrary, it possesses a more peculiar and strange population than is perhaps to be found in any other part of the globe.

It is very generally believed that African tribes possess but a scanty amount of respect for the usual forms of morality. This is a mistake. A comparison between the average moral behavior of a central African tribe with that of the inhabitants of civilized lands would be, I think, to the credit of the savages. Wives are bought, it is true, but probably the very idea of property causes the marriage-tie to be less frequently abused than among more civilized races. In those parts of Africa which are under European rule and law adultery is anything but rare, because the natives have no other remedy than to bring actions for damages in the Commissioners' Courts, where the amount awarded to the unhappy husband varies from twenty-two shillings to seven pounds, according to the tariff or value of wives belonging to certain tribes. In the interior, however, where European authority is not recognized, adultery is rarely to be purged by a mere fine. The case is tried by the native ruler, and the verdict generally results in the execution of the two culprits in the most brutal manner. Bosman, an old author on the Gold Coast, relates how, when the country was under the rule of Dutch factors, he once witnessed the execution of an adulterer at Axim, a town on the seaboard. The unhappy man was bound and laid on the ground in the market-place, and the task of decapitating him was confided to a child of seven years of age, who with a blunt, rusty cutlass took over an hour

to sever the head from the body ! Such a punishment would naturally act as a powerful deterrent to any would-be Lothario, and the further inland we go in Africa, the more strictly do we find the marriage tie kept.

The Kroboes are not only careful of their wives, but are very particular about the virtuous conduct of their daughters. It has been their custom from time immemorial to segregate all their female children as soon as they approach the marriageable age, and for the last thirty or forty years the Fetish-Mountain has been devoted to that purpose.

As soon as a Krobo girl arrives at the age of eleven or twelve, she is taken to the mountain on a day set apart each year for the great *Otufo* custom, and for five or six years, unless married in the mean time, she is rigidly confined there under the care of a few Fetish priests and priestesses, who are charged to look after the girls and instruct them in certain habits and accomplishments which will fit them to become satisfactory wives. The ceremony of initiation into the body of *Otufo*s or virgins, is one of the most interesting and curious of the Fetish customs of Krobo ; and it happened that, as three of the king's daughters were among the candidates, unusual preparations had been made to lend the utmost importance to the particular ceremony which I had an opportunity of witnessing.

Perspiring at every pore we toiled slowly up the rugged path, more than one of us loudly inveighing against the heat, the flies, the noise, and the dust, and vowing that the greatest Fetish custom in all pagandom was never worth such a terrible climb. The path, too, was full of strings of natives ascending and descending, all shouting and singing, and sometimes firing off their old rusty guns in the most startling proximity. The noise was deafening, and the crack and rattle of the old muskets resounded from all points. "But where are these confounded girls ?" one of us would now and again querulously ask. "Oh ! dey live

for village topside mountain, massa," was always the monotonous answer of our guides. We felt as if we had already climbed thousands of feet, and yet seemed no nearer to our destination, but in perspiring and sulky silence we still pushed on. Every now and then the sides of the path would be strewn with calabashes and earthenware pots, filled with palm-oil *chop*, a mixture of corn-meal, seeds, and palm-oil, placed there as offerings to the spirits of the dead and to propitiate the great Sasabonsam, the horrible, red, hairy monster who represents the Lucifer of the Kroboes.

At last, however, we reached the outskirts of a village, and a crowd of young men turned out to meet us, dancing wildly, shouting madly, and letting off their guns in a most disconcerting manner. This happened to be one of the principal *Otufo* villages, of which there are twelve on the hill, and we were all unfeignedly glad to hear that the king happened to be there, so that we should not be obliged to go any further in the broiling heat. We had turned the side of the mountain during our ascent, and now found that the southern aspect, though almost as precipitous as the northern, was clothed with the densest vegetation, forming a most welcome and refreshing shade. The village was perched on the crags and precipices in a wonderful manner, and the red mud huts, with their thatched roofs, appeared to be hooked on in some inexplicable fashion wherever the smallest ledge of rock allowed of it.

Presently we arrived at a small, open space, a few yards square, which was fairly level, and here we found one of the two dusky monarchs of Krobo. In the centre of a crowd of young men arranged in a semicircular order, King Sakitti with his two principal chiefs sat on low, curiously carved native stools. Over their heads, gently swayed up and down, was an immense green silk umbrella of the dimensions of a small tent ; heavy bullion fringe hung from its edges, and on the top, in the place of the ferule of an ordinary par-

asol, was a strange, Fetish emblem covered with beaten gold. The enormous umbrella, slowly raised and lowered by a pair of brawny black arms, was a gorgeous and imposing object, as the bright green silk, the bullion fringe, and golden emblem flashed back the rays of the sun. Three or four sword-bearers, squatted on their hunkers, held up huge, iron, open-worked scimitars with handles formed of two great balls covered with thin plates of virgin gold. The royal interpreters, with chased plates of gold hanging on their chests, stood behind their master perfectly unmoved by the terrible thumping of a score of tom-toms and brass pans, beaten *con furore* immediately at their backs.

King Sakitti, a tall, slender, intelligent-looking negro, rather over the middle age, was very simply clad in a handsome cloth of native make, wound round his body with one end flung over his shoulder. On his head was a turban of yellow silk, and on his feet a pair of curiously wrought sandals. His only ornaments were a handsome gold collar and sword of which he was evidently very proud, as they had been sent to him, together with a medal, by Queen Victoria, in consideration of services rendered by him during the Ashanti War.

After the usual handshakings with the sovereign and his principal chiefs, some more native stools were produced and we were at last able to sit down. The noise was deafening; the incessant firing of guns on all sides, the vigorous thumping of tom-toms, and the shrill trumpeting of elephant horns, combined with the unceasing chant of the Fetish song, made a medley which, though wild and interesting, was so intolerable that, after giving the king the customary "dash," or present of whiskey and gin which we had brought with us, we all decided to adjourn to some quieter spot where we might take some of the refreshment of which we were by this time thoroughly in need.

It was easy to perceive that our visit to the mountain was by no means a welcome one, for the faces of most of

the people and especially of the Fetish priests, who were distinguishable by their white garments, wore expressions of ill-will and malevolence but thinly disguised. We ran very little danger, however, as most of us were officials, fairly well known by the natives; and, the nature of our "dash" having pleased the king, he promised that we should have a good view of the Otufos and of the ceremonies which were to begin a couple of hours later. Accordingly at the appointed time, when we had been sufficiently restored by an enormous luncheon, the king sent a couple of his people, as guides, to show us what might be of interest.

The villages where the girls live are of considerable size, and though built entirely of *swish* (red clay), the houses are much neater and cleaner than the average huts of the Gold Coast. The entire population of a large stretch of the surrounding country having met to take part in the ceremony, the mountain was marvellously crowded, and every village teemed with a noisy mob. On every spot of level rock, a few yards square, we saw preparations for the ceremony. In the centre of a group of old females, were one or more candidates for the "custom." Stark naked the girls stood on sheep-skins, while they underwent all the elaborate preparations consecrated to the occasion. Most of them seemed to be between the ages of nine and fifteen, and some of them were of exquisite proportions. Their sleek, lithe, black bodies, after having been carefully washed, were oiled and rubbed until the skin shone like polished ebony. Spots of red and white clay were then dabbed on in patterns, three or four straight white lines encircled the arms and legs, and red spots were arranged like constellations on the forehead and breasts. Very leisurely and with elaborate ceremony was each item of the preparation performed. Every dab of clay was put in its proper place with a chorus of the same strange minor chant which had filled the air since early morning. Tom-toms were beaten incessantly and a ring of the most hideous old black



women circled round and round the girls, uttering strange cries and waving their lean, withered arms. The young men fired their guns at every corner, and the oldest woman in the crowd tottered about with feeble steps, scattering on the ground oblations of palm-wine and *kanky* for the propitiation of any evil spirits which might be hovering round. One of these ancient females was the most unearthly specimen of humanity I had ever seen. Her age must have been very great, for her small, wizened body was so shrunk and bent that it looked like the remains of a smoke-dried mummy; the bones of her legs and arms were as clearly defined as in any anatomical specimen, and the wrinkled black skin hung in gristly knots round the gnarled joints. Her sole garment consisted of a tattered cloth tied below her breast, and a long string of cowries dangled from her palsied neck. Her head had been cleanly shaved with the exception of a circle at the top of her scalp, where the snow-white, woolly hairs were drawn up tight together and tied with a piece of red cotton, forming a ghastly sort of plume. The prominent cheek-bones which seemed to be almost piercing the skin, the dim, sunken eyes, and the toothless jaws which tremblingly murmured a weird incantation complete the portrait of this Mother of the Tribe.

When the regulation number of spots and lines of colored clay had been satisfactorily laid on the girls' bodies, and numerous wisps of plaited grass twisted round their arms and legs, a large number of strings of white beads were then fastened round their waists, forming a belt from which hung down almost to the ground in front a long, narrow, curiously knotted piece of white cotton. Round their necks, breasts, and shoulders were next twined the intestines of sheep and goats, carefully cleaned and washed, but nevertheless presenting a singularly revolting appearance. This barbarous costume was completed by the fatty linings of goats' stomachs being laid on the girls' heads so that the ragged edges hung down over their faces and necks. Some of the candi-

dates had no less than five or six of these strange articles of apparel on their heads, and from a distance these pieces of skin and fat looked very much like woolly bits of white crochet. The number of these headdresses indicated the wealth of the girls' families, as they represented the number of sheep and goats slaughtered to celebrate the festival.

A considerable time had been spent over this elaborate but rather disgusting toilette, and messengers were now running about on all sides, shouting out that the ceremony was about to commence and that all candidates for admission to the mountain as an Otufo were to assemble immediately at a certain spot. A peculiar leaf was then thrust between the lips of each girl and a long white wand placed in her right hand, and thus accoutred we could see them passing from all parts of the hill to the point of meeting, each attended by a crowd of relations and friends who now fired off their guns without intermission. The air was thick with smoke and almost choked us, but wishing to see the whole performance we followed the king's guides and soon arrived at the scene of the principal ceremony.

The girls were all marshalled by the white-robed priests in a regular procession to a fairly large, level spot near the top of the mountain, where they were arranged four or five deep in a circle. There appeared to be a very large number of them, probably between seven and eight hundred, and their naked black bodies with the curious adornments formed a striking picture. Every one, save the priests, was now made to retire to a little distance. An exception, however, was made in our favor, and we took our seats on some native stools in the interior of the circle, together with the two kings of Krobo and their principal chiefs. The second king, whom we had not yet seen, was very splendid in a nondescript sort of uniform. An admiral's cocked hat was stuck in a rakish manner on one side of his head; very gorgeous and also very large yellow boots



were on his feet; a red mess-jacket was on his back, while round his lower man he wore a brilliantly striped native cloth. This monarch was evidently honoring the ceremony with enthusiasm, and his potations had apparently been many and strong, for his reception of us was by no means impressive. He was a great contrast to King Sakitti, who rather plainly showed his contempt for his brother ruler.

In the very centre of the circle formed by the Otufos was a curiously shaped rock of considerable size. It rose out of the ground like a large, regular mound, its sides fairly steep and perfectly smooth. Round and round this rock five or six priests walked and danced with curious jerky steps. Dozens of tom-toms, brass pans, and iron bells made an overpowering din, considerably increased by the blowing of elephant-horns and the never-ceasing song yelled with the greatest enthusiasm by the thousands of natives. The candidates alone were perfectly silent and motionless; the leaves were still between their lips and each girl hung her head in evident timidity. It seemed as if they were dreading some part of the ceremony which was apparently close at hand, and we looked forward with curiosity to what was coming.

Fast and furious grew the dance of the priests round the rock, and waxing hotter and more excited they leaped and twisted themselves in horrible contortions. Forbidding-looking fellows they were, with long, woolly hair strangely twisted and plaited; streaks of white clay, drawn in thin lines on the black skin, gave them a ghastly appearance, while hanging all over their bodies were a number of small bundles of colored rags, bones, animals' claws, feathers, and all sorts of fearful and wonderful charms and fetishes.

When this dance had lasted a certain time, King Sakitti made a signal. The girls were then arranged in single file, and we found that they were each to climb up and down the rock in turn. It was explained to us that this was the test by which it could be decided whether each maiden was a fit candi-

date to be admitted to a residence on the mountain as an Otufo. Each girl was in her turn to ascend the smooth sides of the rock and descend with the sole assistance of her wand. If she performed this task without slipping or falling, she was considered of unimpeachable virtue; but if any unfortunate should slip, tumble, or fall on her knees such accident was to be taken as an unmistakable token of her unfitness to be received as an Otufo. The summit of the rock was not more than eighteen or twenty feet from the ground, and, though the sides were steep and slippery, the task was by no means difficult, especially to hardy little black maidens accustomed to run about over hill and crag all day. The moral knowledge or consciousness of being unworthy was probably relied on to point out the truth, and the effect of guilty unsteadiness would be attributed to the unmistakable action of the great Fetish in causing the girl to stumble and fall.

The girls of Krobo were either unimpeachably virtuous or else possessed a remarkable amount of feminine confidence, for although more than seven hundred of them passed over that slippery rock, the great Fetish gave to each, with one exception, that steadiness of foot which was taken as the certain sign of unimpeachable respectability. The only exception was one unfortunate little girl about twelve or thirteen years old, who, before she had advanced a yard up the side of the rock, managed to entangle her white rod between her feet. Giving a despairing cry, the poor creature threw her hands over her head and fell face downwards on the rock. A terrible shout rent the air; the poor child, who seemed almost unconscious and paralyzed with fear, was seized by the howling priests, dragged along the ground, and in a moment the crowd closed over them.

With startling suddenness the song had changed, and in the place of the minor chant, which though rather monotonous was not unpleasant, an unutterably dismal howl rose from all sides. The tom-toms were immediately

silenced, and only the long, white elephant-horns blew an unearthly wail which re-echoed among the rocks and hollows of the mountain. At the same moment the sun happened to be suddenly obscured by a cloud, and all color seemed to have faded away into depressing gloom. The effect of the sudden transition was most dramatic, and so unearthly, and at the same time savage, was the song now sung, that a cold shudder ran through my whole frame. "What will be done to her?" I excitedly asked the interpreter, thinking of human sacrifices and similar horrors.

"She will be sent off the mountain, never to return," answered the man, looking stolidly in front of him. "She is unworthy."

I was about to insist that the king should answer my question, when I was assured by one of our party, a white trader who had inhabited the country for some time, that no bodily harm would befall the girl, but that, being henceforth an outcast, she was no longer looked upon as forming part of the tribe and could be taken possession of by any one. I was nevertheless not satisfied, and, remembering the frequent instances of human sacrifices brought home to the Kroboes, I determined to bear the incident in mind for future inquiry.

A few minutes later, the priests returned into the circle, and instantly the drums beat again and the people at once resumed the monotonous chant. The girls continued one by one to pass up and down the rock, and the ceremony proceeded without further incident.

We were told that when all the girls had passed the ordeal, they would be taken in a body to two or three villages set aside for the purpose, and there would be confined for seven days to the houses. During this time they would not be in freedom for a moment, nor would they be allowed to utter a word. They would be cared for and fed by the priestesses, and at the end of the seven days they would be released, in order to take part in the final cere-

mony of their initiation. I was not told whether the loathsome portions of their apparel were taken with them in their seven days' seclusion, but we must hope not. On the seventh day, however, their bodies would undergo a second purification; the white beads round the hips would be exchanged for a vast number of strings of colored ones, from which would hang, back and front, a handsome silk cloth, velvet, or even brocade. This cloth, rather short in front, would be very long and narrow behind, sometimes seven or eight feet in length, so long, in fact, as to necessitate its being tucked or tied up. This narrow cloth constitutes the "tail" for which the Krobo girls and women are famous on the West Coast of Africa; the young women of this tribe being generally known as "Tail-girls" rather than by the native term *Otufo*. No expense is spared by the Kroboes on the adornment of their girls while on the Fetish-Mountain, and the materials which form the tail are often of a very costly description. A vast quantity of beads, bracelets, and necklaces are also placed on them, and on their heads a very curiously shaped hat. Formed exactly like an inverted flower-pot and of considerable size, this hat is made of very finely plaited straw. It fits well on to the head, and is glued to its place so that it cannot easily be detached. It is to be hoped that these headdresses are occasionally changed, otherwise—but we will not pursue this part of the subject farther. The costume of the *Otufo*s is completed by a pair of curiously shaped anklets. They are rudely fashioned of iron, and when shaken emit a sound like that of a cracked bell. As they can only be taken off with great trouble, a skittishly inclined Tail-girl would have some difficulty in concealing the direction of her whereabouts.

When the girls have been finally invested in this brave attire, they are definitely enrolled in the body of *Otufo*s. For the next four or five years they will never leave the mountain, or be out of sight of one of the guardian priestesses. They will do no work,

save fetch and carry water and wood and prepare their own food. Their parents and friends can only see them three or four times a year, and it is on these occasions that any Krobo bachelor seeking a wife accompanies the families to that part of the mountain reserved exclusively to the girls, and makes his choice. If the girl be of a marriageable age, the dower is at once paid, and the wedding takes place as soon as convenient; but should the object of the man's choice be too young, she will be "sealed" to him, and he will have the privilege of paying for her maintenance on the mountain until such time as she leaves it to become one of his wives.

This ceremony is only one of the four great "customs" which take place annually on the Fetish-Mountain; the others, known as the *Kotoclo*, *Nadu*, and *Kokonadu*, are reported to be much less harmless in character. Fetish customs and practices are hedged in with so much secrecy and mystery that many criminal and atrocious acts are probably committed which are never brought to the notice of the government.

The British settlements on the Gold Coast are almost entirely confined to a narrow strip of land running along the seaboard. District commissioners and other officials are stationed at all the principal points, and in the large towns on the coast line life and property are as secure as they are in England. The natives inhabiting the immediate neighborhood of the official settlements are being slowly but gradually improved by education, and also perhaps in a slight degree by example. Owing to many reasons, however, and principally on account of the extreme unhealthiness of the interior, only a very small number of Europeans have made settlements at any distance from the seaboard, and although the government has imposed its authority in a remarkable manner on all those tribes inhabiting the regions included in the Protectorate, there is hardly any direct influence of European civilization on

the people of the interior. Their manners and customs are identically the same as they were when the first white men landed on the Gold Coast nearly five centuries ago, and though Ashantis and tribes further inland may be seen wearing Manchester cottons and decorating their mud huts with gaudy pictures of the Crucifixion and Resurrection, the ordinary life of these savages has not been modified or improved in any perceptible degree. It is not indeed to be expected that, among beings so ultra-conservative as the African negro, abominable practices which have been religiously observed for thousands of years could be eradicated by the mere fact of making them criminal.

HESKETH J. BELL.

*Note by the Author.* — This paper was written a few months ago on the Gold Coast. Since then, King Sakitti having died somewhat suddenly, an inquiry was made by the government into the nature of the Krobo Fetish customs, more especially as regarded the *Kotoclo*, the *Nadu*, and the *Kokonadu*. This inquiry resulted in the discovery that the customs were attended by all kinds of atrocities, the *Kotoclo* especially being characterized by human sacrifices on a considerable scale. In last October the Krobo Mountain was taken possession of by the colonial troops, and the Fetish houses, on being ransacked, were found to contain enormous numbers of human skulls, thigh bones, and other evidences of barbarous rites. Four Kroboes, convicted of participating in a human sacrifice, were hanged by the colonial authorities in the presence of the whole tribe. The Fetish houses have all been burned, together with their gruesome contents; participation in any of the Krobo customs has been prohibited by law, including even that of the *Otufo*; the girls' villages on the mountain have been destroyed, and a Christian king has been nominated by the government as a successor to the late Sakitti.

From Blackwood's Magazine.

A TALE OF TWO STUDIOS.

"The craft that createth a semblance and mocketh the heart's desire."

I.

MRS. PALGRAVE had won a great share of the world's regard. Well born and highly accomplished, she had been early left a widow, in poor circumstances, with one child—a boy. She had many friends, but from friends it is hard to accept the necessities of life, be they never so freely offered. One friend there was who would fain have given her his all—one who had loved her almost from her childhood,—loved without hope.

It was to the credit of both of them that she had succeeded in keeping his friendship even while she gave her heart to a man whom she knew to be less worthy than he, but whom, nevertheless, she loved. For hers was the fervid nature in which the heart and not the head is leader.

When Mr. Palgrave died he took with him to the grave the love of the woman whom he had worshipped and ill-used. For a while George Heaton, Florence Palgrave's best friend, had hoped that his strong, patient affection would be rewarded. He had hovered near her, helping her with good counsel, and in every possible way lightening her burdens. By degrees he grew to perceive that her heart was buried with the man whose love had been so unlike the steady, helpful love which he bore her; but none the less, while he accepted his situation with sad courage, did he continue his friendship and his support. Nor, though she could not love him as she wished, did she fail to appreciate his untiring service, to admire his great qualities, and to reverence his judgment. So that her affection for him grew to be a scarcely less earnest feeling than her love of her dead husband, only it was different,—it was less selfish; it was, in truth, a higher feeling; and, such as it was, he accepted it with gratitude, and took it as his mission to watch over her and be by her side in all difficulties.

Happily he had a means by which he

could aid her, materially and without offence. He was a man of small but sufficient fortune, who had followed no profession, but had given his life to the pursuit of art, not as a means but as an end in itself. He had studied hard, as a young man, but had early convinced himself that he was lacking in the manual skill to produce great work; and with the renunciation of which his nature again showed itself capable in the matter of his love, he had practically abandoned all effort of production, and contented himself with adding to his great stores of knowledge, and in studying the elementary principles of art until they began to assume for him the exactness of a science. In the whole art world no opinion was more valued than that of George Heaton, no judgment was given with a graver sense of responsibility nor with more perfect honesty. When, therefore, he began to speak of Mrs. Palgrave as a sculptor whose work merited attention, her fame and her fortune—so far as fortune can be made by any ordinary success in art—were secure. She in no way belied his praise; for so soon as her affairs had been put in some order after her husband's death, she set herself to a severe course of work for two years or so at the study of structural form, and thus laying a solid foundation for the skill and manipulation which previous practice had given her, was competent to execute the orders which Heaton's commendation brought plentifully to her. Her works were in many of the best houses of England, her name was mentioned among the leading artists, and in society she was spoken of with an affectionate admiration as a woman of its own set, to whom circumstances, at the first, had been adverse, but who had conquered them all, not by the charm of person, with which nature had plentifully endowed her, but by the power of her genius, which had placed her high among contemporary sculptors.

II.

THE light in the studio was growing very dim. The bronzes stood out like

black guardians, and the marbles and plaster figures were ghostly. The men who worked on the marble had gone home, and the measuring-bow and the chisels were laid aside; but Mrs. Palgrave's fingers still flew feverishly over the shaping mass of clay before her, as if she feared to lose a moment of the remaining daylight. George Heaton stood near her, watching her with eyes of grave affection, as she worked. The dark braids of her hair showed few lines of silver where the small widow's cap did not cover them. Her cheeks were still aglow with the light of young health, and her beautiful dark eyes with the fire of eager purpose. George Heaton, with his strongly cut, composed face and grizzled beard, looked nearly a score of years her senior, though he was so but by half that number.

"You *are* clever," he said at length admiringly.

"Clever!" she echoed, and a note that was almost a cry of pain sounded in her voice. "Clever! What is it to be clever? A monkey is that."

She laid down her modelling-tool, and with tears standing in her dark, passionate eyes looked up at him.

For him, he was so greatly surprised at the effect upon her of his remark that he was unable to reply for a moment.

"I said you are clever," he repeated — "clever. I was admiring your cleverness."

"Yes," she said impatiently. "Yes, you always tell me I am clever. Will you never have anything to tell me but that?"

"What is your meaning, Florence?" he asked. "Surely you are not dissatisfied with what I say,—with your work, with your success?"

"My success!" she echoed, with a mocking laugh. "Success do you call it?"

"Well, but, my friend, see—is it not success? Have you not orders more than you can execute? Have you not fame—praise?"

"Praise—whose praise?"

"Universal praise."

"The praise of fools!" she cried bitterly. "Oh, George, I am so sick of it. I get their praise, and I get their money, and I am grateful for it. I am grateful to you, my dear friend, for it—for it is to you that I owe it all; but it would be ten times more grateful to me to hear once from your lips that I had done good work."

"But you have. I tell you now, and always. You do do good work."

"Oh, good work, yes—good in its way, I suppose; but great work, never. Can I never do great work?"

"Florence, you surprise me so much! I had always thought that you were pleased, satisfied, with your success."

"Again my success! Oh, George, no. I have kept it so long to myself, for I felt it ungrateful to you to complain, owing everything, as I do, to you. But it withers me with self-contempt when these people praise me—those who know nothing; while you!—yes, you praise—you praise my *cleverness*."

Heaton was sore put to it, but his loyalty to her and his own best self forbade him to delude with a lie the woman he loved.

"Shall I *never* do anything great?" she asked, as he was silent—and gazed into his eyes, as a prisoner into the eyes of his judge.

"Florence," he said tenderly, "can you, a sculptor and a woman—one, therefore, who looks sometimes in her glass—ask me this question seriously? Or, rather, can your glass not answer that question for you? God gives but very few of us so many gifts as he has given you. You have all the quickness of apprehension, all the manual dexterity, for a great artist, besides all your social and personal gifts. But this great creative faculty—look in your glass and ask it—does that consist with the quickness which every line and feature of your face shows so vividly, and which makes its charm? Do you not know that creation resides in those slow rounded forms which lack the qualities which light your face? You have the love, the instinct, the appreciation, and the manipulation;



but the creation — How few have ever had it! Above all, how few of your sex — in its highest sense! Sappho, perhaps, alone — and she is little more to us than a myth. Forgive me, dear, if I pain you. But you wanted the truth, did you not?"

"Yes," she said slowly. "Yes, yes," she repeated again. "I wanted the truth." And she threw her modelling-tool from her upon the floor, and, rising, left him alone in the dim studio.

"By heaven!" he exclaimed to himself, "is it well to tell the truth? Is it worth the pain?"

### III.

FOR a whole week Mrs. Palgrave did not come to the studio. The workmen who chipped at the marble had never known her so long away. But they were quite competent to progress with their work in her absence, and gave themselves the explanation that her boy had just returned from Eton for his holidays.

The intensity of her affection for this boy sometimes almost frightened her. Her fierce pagan love of his father seemed to have burnt itself down into the purer but scarcely less deep maternal affection. In the boy she saw all the loveliness of her husband's nature, but (yet, at least) none of his vices. Gerald resembled his father rather than his mother, in face as in disposition, with feelings slumbering deep and hot under a calm surface. She had watched the boy grow in mental and physical stature with something of the delight, ten times intensified, of her pleasure in her artistic productions. Her pride in him was so great that she felt that all the best of her own being was wrapped in him, and she feared lest God should punish her for her too great love by taking him from her, as he had taken her husband.

But no such calamity befell, and now he had come back to her from school for a while, a tall, strong lad in his sixteenth year. All the fifteen years of his life she had done her best to spoil him, but still he was unspoiled — a

sweet, strong nature, loving his mother with all his heart, and with a deeply rooted faith and pride in her genius.

Gerald had been home about a fortnight when next George Heaton called at the studio. Mrs. Palgrave met Heaton with slight embarrassment in her greeting. "Forgive me, dear old friend," she whispered to him, "for the manner of our last parting." His brown cheek flushed at her words, and the pressure of his hand spoke the fullness of his pardon. Then he turned to Gerald. "What!" he exclaimed, as the boy came to him with hands white with clay. "Have you turned sculptor too?"

Gerald shook his head and laughed. "I am afraid he is not exactly what we should call artistic, — are you, Gerald?" his mother said, joining in his laugh.

"Not much. It's jolly stuff to muddle with, though."

Heaton examined Mrs. Palgrave's work, and spoke encouragingly of its progress, since he had last seen it. Then, as she resumed it, he strolled across the studio to watch the marble work. In so doing he stopped before the turntable at which Gerald was amusing himself, and gave an exclamation which made Mrs. Palgrave look up.

"Did you do that?" he asked the boy.

"Yes; it's Gunn 'cutting.'"

"Who? Doing what? It's cricket, isn't it?"

"Yes; Gunn, you know, 'cutting.' Oh, I say, you don't mean to say you don't know who Gunn is?"

"No," Heaton said. "I'm ashamed to say I don't."

"Why, he had the head average in Notts, all but Shrewsbury."

"I didn't even know that Shrewsbury was in Notts," Heaton replied helplessly; "but tell me, did you do this thing — all alone?"

Mrs. Palgrave had laid down her modelling-tool, and was looking up, amazed at Heaton's tone. Any possible amusement at the colloquy between Heaton and the boy was lost in this surprise. She knew so well his ordi-



nary tone of charitable tolerance in art matters — she had felt its sting so often. This tone was quite different — one she did not know.

"Yes, I did it, of course," Gerald said, in answer to his question — he too looking up, surprised.

Heaton was about to speak when his glance chanced to light on the face he knew and loved so well. He looked with a swift study at it, and the words he was about to speak died on his lips. He said nothing, and the boy went on with his cricketer. After watching him a few seconds longer Heaton went to the marble-workers.

"I say, Mr. Heaton," Gerald called out directly, "you don't know, I suppose, whether Gunn generally wears two gloves or one?"

"Unfortunately," he said, "I have not the honor of Mr. Gunn's acquaintance."

"No; but you might have known that, I should have thought, all the same," said Gerald reproachfully. "Wait; I think there's a picture of him in the Badminton cricket-book. I'll go and look."

"Florence," Heaton said, coming across the studio to her as Gerald left it, "the boy has power. Have you seen his work? — it has 'go.'"

"No," she said, rising; "let me look at it. I have not seen it — only just glanced at it." Her voice sounded strangely, both to Heaton and to herself. She, too, had found a new tone to-day.

She looked at the boy's work in silence. "Well?" Heaton said.

"Well," she echoed. "Is it good, do you think?"

"Why, there is life in it — it moves," he answered, almost as if irritated by her lack of appreciation. "Don't you see? Look at the lines. Is there one you could alter, or that I could wish altered?"

"Look at the right leg."

"Oh, of course!" he replied. "The anatomy is impossible. How could it be otherwise? There is absolutely no knowledge. But there is something better."

Then Mrs. Palgrave laughed, a little forcedly. "What an absurd idea it is! The sort of thing a boy *would* choose to model. Ah, what Philistines they are!"

There was something in her tone which jarred upon Heaton. He could not analyze it, but he was conscious of it; and when Gerald came back he took his leave, and went away whistling softly, which was his habitual aid to meditation.

Ten days later he chanced to meet Gerald, and asked, "Well, how is the cricketer getting on?"

"Oh," the boy said, "I have not been working at him any more. Mother does not care for me being much in the studio. She says it distracts her from her work."

#### IV.

GERALD had been back at school some while when George Heaton, after a prolonged period of meditative whistling, made his way one day to Mrs. Palgrave's familiar studio. She was just finishing work for the day, and led him with her to the drawing-room and to five-o'clock tea. After a little talk there fell a pause; and then Heaton, with masculine abruptness, asked: —

"Have you settled definitely at all on Gerald's profession?"

"I want him to choose his own line," Mrs. Palgrave said. "I believe he is inclined to the bar."

"Don't you think," Heaton said rather confusedly — "don't you think you ought to give him a chance?"

"A chance?"

"At that," he explained shortly, nodding his head towards one of Mrs. Palgrave's own works standing in an alcove.

"At sculpting!" she exclaimed, flushing a little and laughing. "Oh, I don't think he has the slightest turn that way."

"Ah, I fancied he had," Heaton said dryly.

"Oh, you mean that ridiculous cricketer! He has done nothing since."

"He told me that you said — that he thought — his presence in the studio distracted you."

"Did he?" and again the slight flush came to her cheek. "So it does," she added quickly. "It—yes, it distracts me."

"There is no reason, is there," he asked gently, "that he should not work in another studio? I mean, of course, if he learned he would have to learn under some one."

"Of course," Mrs. Palgrave replied coldly.

"Oh, forgive me!" he said bitterly, perfectly construing her tone. "I know I have no right—I know I am presuming! It is none of my business; and I am impertinent——"

"No, no, no, you are not," she said, with quickly changing mood, speaking with impetuous vehemence—"you are not. You are good, kind—everything that is good, as you always are to me. Do—will you, George?—you who have done so much—everything—for me,—will you do this too? Find out from the boy—try him—see if he can be any good. And if he has any bent that way, arrange it—arrange it for me. Will you? Arrange for having him taught, and so on. I *cannot*."

"You *cannot*! Florence, what do you mean?"

"Oh, I cannot—don't ask me why! And yet I love him with all my heart and soul. Only, manage this for me—as you ever have managed my difficulties—and spare to ask me why I beg this of you."

She seemed strangely moved—so deeply that the tears stood in her great dark eyes. Heaton had the tenderness to forbear from further questions, only promising to do as she wished. But for days and weeks and months her mood was a source of wonder to him; for even when Gerald's school-time was finished, and he was making arrangements for the boy's instruction in the studio of a friend—into all which Gerald entered with enthusiasm—Mrs. Palgrave would listen to no discussion of the plans. She had left all to Heaton,—the good angel of her life, she said, with a short laugh, when the subject was mentioned between them. And when Gerald came to her with

news of his progress, and all he was doing and learning, she listened with a strong effort of self-repression and forced interest which the boy could not comprehend, and which made him secretly unhappy. They had been in such perfect sympathy, and yet in this, in which it would have seemed that his mother could have entered more fully than in any former interest of his young life, she would take no part!

But Heaton, whose praise was hard to win, spoke highly of Gerald, expressing great hopes of him; and at length a day came on which it was made known to Mrs. Palgrave that Gerald had a subject of his own imagining which Heaton thought him competent to enter upon, and that he was about to set up the supports and work out the plans in a studio of his own. Even then she would not come to see his studio, nor did she wish the subject of his first original work to be told to her.

"Do it all by yourself," she had said to Gerald, by way of putting him off. "Do not tell me a word about it until it is finished; then on the day on which you tell me it is finished, let me go to the studio and find it complete."

Gerald was, perforce, content with this, and pictured it to himself as his mother's pretty affectionate fancy.

So the two worked away in their separate studios, Heaton coming often to Gerald's help, and speaking to him of the form of Phidias, the weight and dignity of Michael Angelo, the grace of Praxiteles; and as Gerald drank in all the inspiration, his own conception took shape. By slow degrees, out of the shapelessness of the lump of clay, it grew to the semblance of living form. It was with him day and night—had full possession of his dreams even—was ever between him and all sights of sense. He worked upon it with a fury of creation which made him regardless of cold hands and feet and burning head, and of meal-times and bedtime. It seemed, vampire-like, to be sucking the life-blood from him while he gave it life, and he grew pale and hollow-eyed, but still he was sustained by the fever of creation. Once

or twice his mother was moved to reason with him on his excess of zeal ; but though it was sweet to him to hear her speak on this subject, which sometimes seemed to him to lie like a dead thing between them, he could not obey. She, too, was ill, though she would not admit it — torn by an inward struggle.

At length there came a day when he burst into her studio with a flush of triumph on his face, and a look of fierce joy in his eyes.

"It is done!" he cried. "It is finished! There is the key, mother. Go and see it before it gets dark."

He would not go with her. His thoughts were in a turmoil as he rushed out again into the still, frosty evening. The setting sun hung like a great red ruby in the haze. He laughed to it as he sang it good-night. He was almost like a madman with delight. "I don't believe it — I don't believe it," he kept saying to himself aloud, "what Heaton tells me, that soon I shall grow dissatisfied with it and hate it. I think it is good, good, good. I believe in it."

## V.

MRS. PALGRAVE remained standing as he had left her, with the key of the studio in her hand. The blood came hotly to her face as she gazed at the innocent little steel thing with the fascination of horror which harassed Macbeth's vision of the dagger. Her pulses throbbed fiercely through her worn nervous frame, and her breath came thickly. Then moving like one in a dream, she climbed upon a chair, and, reaching to her full height, placed the key on the top of the old clock upon the mantelpiece.

She sighed with relief, as one who has gained the victory in a hard fight with self, and threw herself in her arm-chair. "I dare not go and see it — I dare not," she murmured. "Especially alone."

Then she sat and began to read. The book she was reading was one of the old mythical sagas of the Scandinavian gods and heroes. She read of the wondrous sword of Sigurd — Odin's gift, named the Wrath — which rang in

the day of battle before the peace-strings were broken. She laid the book upon her knee, with her finger at the page which she was reading, and mused. And in her musing a queer fancy came to her overwrought mind. For it seemed to her that the key upon the clock began to hum with a weird song of battle — even as the Wrath of Sigurd had done. The fancy grew upon her as she fought against it, until the whole room was filled with the eerie, hateful humming. She threw down the book and covered her ears with her hands, but still the pagan song rang home to her with a force that grew and grew till it seemed to fill the world. She could resist its appeal no longer. She mounted quickly on the chair again, seized upon the key, and hurriedly putting on her things, went swiftly through the streets to Gerald's studio.

At the door she stood with parted lips and wide eyes agaze. "Ah," she exclaimed, with a snatching of the breath, her involuntary tribute of admiration to Gerald's beautiful work. But it was no loving admiration, — rather it was of the nature of the tribute which the wife of Antony might have paid the fatal loveliness of Cleopatra. She gazed at the beautiful figure with an intensity of admiration which grew and grew, and as her admiration grew her hate grew with it, until she could bear the sight of the thing no longer. Her mind was filled with pagan stories of the fierce vengeance of white-armed Signy and Brynhild. The blood rushed to her white, set face, the world grew red before her eyes, as when the berserk fit came upon the fighters of whom the saga told, and, with a cry that was fraught with insanity, she rushed like a mad thing upon the clay statue and fought it, dragging this way and that till it bowed itself and fell crashing to the floor. After the first cry she had fought in silence, but now, as her foe fell, she gave another cry, strangely different, which had in it more of a sob than of triumph, and falling forward, lay senseless, with her dark head pillowed upon the white shoulder of clay.

## VI.

Now that his beautiful work was finished, Gerald could not bear to be long away from it. It attracted him magnetically; and while his heart sang to him a song of triumph he returned from his walk, almost running, to his studio. There was yet a glimpse of daylight by which he might see the fair god of his handiwork. He gave a glad call to his mother, as the studio door yielded to his hand, showing that she was still there.

On the threshold his word died on his lips unfinished. His feet froze to the ground. His heart stood still in the revulsion of feeling. He stared wildly through the dimness of the studio. His lips opened with uncertain sounds. Then he went feebly forward. The beautiful form which he had left so nobly posed, now lay a shattered ghost upon the floor. Upon the white heap—as ghostly and unlikelike—lay the black-draped figure of his mother prone, her head pillowed on the clay.

"My God!" Gerald exclaimed, and for a full minute stood helpless—stunned. Then the need of action roused him. He approached his mother, but she neither spoke nor moved. She was deeply unconscious.

Gerald rushed from the studio for help.

When he had borne a hand in carrying his mother home, and was awaiting, down-stairs, the doctor's verdict, he mused or walked up and down the little room by intervals. A fever of mental and physical restlessness pursued him.

"It is grave, but she will recover," the doctor said, when he came down.

"Where did it strike her?" Gerald asked.

"Strike her! Nothing struck her."

"Yes, it did," Gerald declared fiercely. "The statue fell on her and carried her down with it."

"She has suffered no serious blow that I can discover," the doctor repeated.

"It *must* have been a heavy blow—it was a big thing."

The doctor shrugged his shoulders.

It was his professional duty to humor people.

"What is it, then?" Gerald asked.

"I should say it was prolonged mental strain culminating in a crisis," the doctor said; "that is, unless you want it in Latin."

"No, thanks, that will do. I wonder where it struck her."

For nearly a week Mrs. Palgrave lay between coma and delirium, but the temperature did not rise to a great height. At length Gerald had the joy of seeing her look forth from her pillow with serene intelligence in her dark eyes. All day she said very little, but lay thinking, as it seemed—as though some trouble still weighed upon her.

In the evening, when she and Gerald were alone together, she stretched out her poor, thin hand to him.

"Tell me," she said, "is it true, or is it all an ugly dream?"

"What, mother?"

"What I have dreamed about your statue—that—that it is broken."

Gerald paused a moment. "Yes, mother," he then said. "By bad luck it is true. It fell on you as you were looking at it, and brought you to the ground. Don't you remember? I did not support it properly."

"Oh, yes," she said, with a cry of pain in her voice. "It is true, then. Oh!" She groaned, and turned her head down on the pillow from him. "But no, Gerald," she resumed, in a voice firm with purpose. "You are wrong. It did not fall on me."

"Yes it did," he said quickly and vehemently. "It fell on you as you were looking at it. We know it did—George Heaton and I."

"No, my boy, there you are wrong, both of you. It did not fall on me. I pushed it—pushed, dragged, ever so hard, to pull it down."

"Mother!"

There was a dead pause; the mother, with her head down on the pillow, listening agonizedly for her son's verdict on her sin—the son wandering in search of charity among his lost faiths.

"I know," he said quickly; then, "You destroyed it. Yes, you were

quite right, because it was not good ; as Flaubert did to the early work of Balzac."

He listened with intense eagerness for an affirmation. But a negative came, with a pitiful cry from the poor, sinful woman on the bed.

"No, no, no, my dear, generous boy," she cried ; "you cannot spare me. It was I who dragged down your beautiful conception and destroyed it. I could not bear it. Oh, Gerald," and as she spoke the tears came coursing off her face like rain — "oh, Gerald, if you knew how I had fought you would pity me. But no—I ought to ask no pity. I deserve none. For years I have been trying to fight out of my heart the jealousy of this great genius which God has given you. For that has always been the cross of my life—since I took up the modelling—that I could do nothing great ; and here you— Oh, Gerald ! and I could not bear it. The life you had created was so good, so glorious, I could not bear it. I murdered it. Oh, God forgive me, forgive me, forgive me !"

"Mother, mother, mother !" Gerald cried, with a world of pity and love. "Oh, don't, don't, don't, please. I forgive you, dearest, if there is anything to forgive. George Heaton is right. I should have been dissatisfied, and hated the thing long ago if it had lived."

"Gerald," said his mother, "please don't say any more. You will *kill* me if you are so generous. Even at the first, when George said you had genius, I could not bear you to learn, but I fought down my jealousy so far as to ask him to see about your learning. But when I saw the beautiful thing, and how good it was, then I could not endure it, and a fearful impulse took me. Oh, Gerald !"

"Mother, mother," he said, and he bent and found the poor, sorely penitent face on the pillow, and caressed it again and again. "Mother, let us never speak of it between us again. It is done, gone, buried."

VII.

MORE than a month elapsed before Mrs. Palgrave was able to leave her room, and many months before she had altogether recovered from her nervous crisis. During this while Gerald was unremitting in his kind tenderness and care. It was only on his mother's earnest entreaty that he could be prevailed on to spend a few hours of each day in the studio. Mrs. Palgrave, so soon as she was able to make the necessary arrangements, dismissed her workmen and shut up her studio altogether, declaring that she did not mean to touch clay again. Nor, though both Gerald and George Heaton endeavored to combat her decision, could they shake it. But it was her earnest hope that some day Gerald would take possession of the studio in which she had worked, and would use it as his own. In the mean time, however, Gerald had again entered upon an original conception—an entirely new one, having nothing in it akin to that one which had been so cruelly destroyed. His mother longed to question him of it, but she could not bring herself to open the subject to him, and Gerald forbore it.

As the weeks went on, and Mrs. Palgrave gained strength, Gerald grew to spend more and more time in the studio, till at length he was working as steadily and eagerly as of old. His eagerness grew and grew as his subject approached completion, and again the fierce fever and delight were with him. Again he worked on regardless of cold and hunger and sleep, and the fire burned in his hollow eyes, ever brighter and brighter, till the glorious day of the accomplished triumph, when he could cry aloud in his joy, "It is perfect !"

Then he hurried home along the streets, seeing nothing but the splendid clay which he had made live, brushing against passers-by and begging no pardons, till he came to his mother's house and said, "It is finished, mother—at last. Here is the key. Will you go and see it ? I must go for a walk."



Mrs. Palgrave grew pale, and trembled in the intensity of her joy.

"What!" she exclaimed in amazement. "Will you trust me with it — after —"

"Trust you, mother!" he interrupted with quick earnestness, — "with my life!"

"Gerald, Gerald, you are too good to me — you are too good." Then a blinding mist came over her eyes as she threw her arms about his neck and rained on him her kisses and her blessings.

Gerald went for a long, long walk. His excitement was less delirious, more assured of success, than at the completion of his first great work. He could bear to be away from it a while, and he would do nothing to make his mother think that he had a suspicion of her. At length he turned homewards, but, passing the studio, thought he would look in, on the chance that she had not yet left it.

The door was unlocked. Again, as after the completion of his first work, a cry broke from him as he stood on the threshold, but a cry of most different tenor. The noble figure that he had created rose aloft in the studio, with the afternoon summer sun bearing full upon it, and before it his mother knelt, with rapt eyes, as if to the image of a god.

"Why, mother!" he exclaimed.

"My boy," she answered, rising from her knees, "I was thanking God for his great gift to you of your genius, and for his great gift to me of you."

Gerald was too moved to speak.

"But you have made a better thing in God's eyes than that statue. You have made, I hope and trust, a good woman of one who was a very jealous, selfish, wicked one!"

Mrs. Palgrave held to her determination never again to touch clay. People praised her as a woman whose own talent and power were sacrificed to the genius of her son. Others, less kindly, said that her nature had lost something of its fire; but if ever, in these latter days, that quick temper to which she had been prone was seen to glow, it

was when any in her hearing spoke of her son having received from her a portion of his inspiration in his art, or in any way suggested a comparison between his genius and her own.

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From The Nineteenth Century.  
THE LIVES AND LOVES OF NORTH  
AMERICAN BIRDS.<sup>1</sup>

THE more intimately we become acquainted with that vast realm the animal kingdom, the more we are amazed and delighted by the wonderful variety and beauty of its countless elements; and at the same time, amidst the infinite diversity of form, structure, and modes of life which distinguish the several divisions of that kingdom, it is very difficult, if not impossible, to determine which of them offers to the student material at once the most interesting and attractive. Probably if the "general reader" were appealed to for a decision, and the subject were put to the vote of a thousand of such, there would be a large majority in favor of that class of vertebrata consisting of birds. The present writer would certainly form one of that majority; and as the Smithsonian Institution has recently presented to the public an especially valuable and instructive volume on the "Life Histories of North American Birds," he gladly avails himself of it to present to his readers a few of the most salient and impressive facts observable in the life and loves of these birds.

Emerson says "all mankind loves a lover," and probably no phase in the lives of the birds to which we are about to advert is at once so curious, so interesting, and so full of instruction concerning their nature and instincts, and especially so abounding with evidence of the large amount of human nature

<sup>1</sup> Life Histories of North American Birds, with special reference to their Breeding, Habits, and Eggs. With twelve lithographic plates. By Charles Bendire, Captain United States Army (retired), Honorary Curator of the Department of Oology, United States National Museum, Member of the American Ornithologists' Union. Washington, 1892.

in them, as is that of their courtship and family life.

There are no less than thirty-eight kinds of gallinaceous birds inhabiting North America, and though the habits of the different species, including, of course, the several ways in which the males comport themselves during their courtship, present a general resemblance, they also present considerable differences. In the very early spring—the latter part of February, often in northern latitudes before the snow has disappeared—the cock birds begin to utter their love calls, and their plumage becomes gradually developed into great fulness and beauty. The males are generally furnished with two very peculiar appendages called air sacs—peculiar in respect both to their appearance and function. There is one, resembling the half of an orange, on each side of the upper part of the neck. These sacs are connected with the air passages of the lungs, and can be distended with air at the will of the bird. Above these sacs on either side, just where the head joins the neck, are a few feathers which ordinarily lie backward on the neck, but which, when the bird is excited, he can turn straight forward.

The cock's love calls are soon followed by demonstrations of a more decisive and often very remarkable character. These are chiefly of three kinds, named respectively "strutting," "drumming," and "dancing." Strutting may be described as a sort of promenade during which the cock birds display themselves in their fresh spring plumage to the hens in order to excite their admiration and love. Strutting begins usually in March. The attitude and conduct of the strutter during his performance are very striking. His tail becomes almost erect, his wings are slightly raised from the body and a little drooped, the head is elevated, the feathers of the head and throat are raised, and the red comb over each eye is enlarged until the two nearly meet over the top of the head. While the bird is strutting the expanded tail is moved from side to side. The two

centre feathers do not move, but each side expands and contracts alternately with each step as the bird walks. This movement of the tail produces a peculiar rustling like that of silk, and his attitude gives him a very dignified and even conceited air. He tries to attract attention in every possible way—by flying from the ground upon a perch and back again, making all the noise he can in doing so. Often, seemingly to increase the noise, he thumps some hard substance with his bill. Sometimes he sits with his breast nearly touching the earth, his feathers erect; meanwhile he makes a peculiar nodding and circular motion of the head from side to side, and remains in this position two or three minutes at a time. He is a most beautiful bird, and, not unlike some human beauties, shows by some of his actions that he is perfectly well aware of the fact.

In his account of Gambell's partridge, Mr. Cobb, of Albuquerque, remarks:—

It is a pleasing and interesting sight to watch the male courting his mate, uttering at the same time low cooing notes, and strutting around the coy female in the most stately manner possible, bowing his head and making his obeisance to her. While a handsome bird at all times, he certainly looks his best during this love-making period.

The entertainment called drumming is seldom performed alone, but, associated with strutting, is commonly relied on by the cock bird to induce the hen whose affection he is intent on gaining to accept his proposals.

The curious antics of the spruce partridge are thus described by an old backwoodsman, Mr. James Langley:—

After strutting back and forth for a few minutes, the male flew straight up, as high as the surrounding trees, about fourteen feet; there he remained stationary an instant, and while maintaining himself in the air did the drumming with the wings, and meanwhile he dropped down slowly to the spot from which he started. He repeated the performance over and over again.

The noise produced by the drumming is said to resemble that of distant thun-

der. Another observer, referring to the Canadian grouse, says :—

The cock performs its drumming upon the trunk of a standing tree of rather small size, preferably one that is inclined from the perpendicular, and in the following manner : commencing near the base of the tree selected, the bird flutters upwards with somewhat slow progress, but rapidly beating wings, which produce the drumming sound. Having then ascended fifteen or twenty feet, it glides quietly on wing to the ground and repeats the manœuvre. Favorite places are resorted to habitually, and these "drumming-trees" are well known to observant woodsmen. I have seen one that was so well worn upon the bark as to lead to the belief that it had been used for this purpose for many years.

The drumming-place is resorted to by the male from year to year. It may be a log, a rock, an old stump, or, when such are not available, a small hillock is made to answer the purpose equally well. The drumming of the ruffed grouse is described by Mr. Manly Hardy, of Brewer, Maine, as follows :—

When about to drum he erects his neck feathers, spreads his tail, and with drooping wings steps with a jerking motion along the log for some distance each way from his drumming-place, walking back and forth several times and looking sharply in every direction ; then, standing crosswise, he stretches himself to his fullest height, and delivers the blows with his wings fully upon his sides, his wings being several inches clear from the log. After drumming he settles quietly down into a sitting posture, and remains listening for five or ten minutes, when, if no cause for alarm is discovered, he repeats the process.

"Drumming" cannot be considered a love note exclusively, for, as remarked by Captain Bendire, it may be heard in almost every month of the year, and sometimes in the night as well as in the daytime ; yet it must undoubtedly have some attraction for the hen. It may be performed as a sign of bodily vigor and to notify her of his whereabouts. Occasionally it causes a jealous rival to put in an appearance also, when a rough-and-tumble fight ensues. The hen is seldom seen near the drumming-place.

The drumming of the ruffed grouse has often been described, and many different theories have been advanced as to how the sound is produced. It is generally conceded now by most naturalists, including such well-known ornithologists as Brewster, Merriam, and Henshaw, that the sound is produced by the outspread wings of the birds being brought suddenly downward against the air without striking anything.

Adverting to the willow ptarmigan, whose courting performance resembles somewhat that of drumming, Mr. M. L. Turner, in his paper on the birds of Labrador and Ungava, says :—

Early in April a male selects a favorite tract of territory for the location of the nest, and endeavors to induce a female to resort to that place. He usually selects the highest portion of the tract, whence he launches into the air, uttering a barking sound of nearly a dozen separate notes ; thence sails or flutters in a circle to alight at the place whence he started, or to alight on another high place, from whence he repeats the act while flying to his former place. Immediately on alighting, he utters several times a sound like the Indian word "chu-xwan" (what is it?), and in the course of a few minutes again launches into the air. This performance continues until nearly eleven o'clock, and, after remaining quiet until about three o'clock, he resumes it, though with less vigor than in the morning. In the course of a few days a female may be found in the vicinity. The actions of the male are then redoubled, and woe be to any bird of his kind which attempts even to cross his chosen locality.

As human beings, by meeting at balls and parties, very often take the preliminary step in the direction of courtship, so many of the birds in question hold their meetings seemingly for the same reason and with like results. The quail, generally known as the "prairie chicken," is especially remarkable in this respect. In the early part of each year a number of these birds hold what may be called their spring assemblies, at which are combined dancing promenades, "strutting," and that peculiar kind of music called "drumming" already mentioned.

After the disappearance of the snow, and the coming of the warmer weath-

er, the prairie chickens (sharp-tailed grouse) meet every morning at grey dawn in companies of from six to twenty, on some selected hillock or knoll, and indulge in what is called "the dance." This performance is a very amusing spectacle. At first the birds stand about in ordinary attitudes, resembling people at a ball before the music begins, when suddenly one of the cocks lowers his head, spreads out his wings nearly horizontally and his tail perpendicularly, distends his air sacs and erects his feathers, then rushes across the "floor," taking the shortest of steps, but stamping his feet so hard and so rapidly that the sound is like that of the kettle-drum; at the same time he utters a sort of bubbling crow, which seems to come from his air sacs, beats the air with his wings, and vibrates his tail, so that he produces a loud, rustling noise, and thus becomes a really astonishing spectacle. Soon after one commences all the cocks join in rattling, stamping, drumming, crowing, and dancing together furiously; louder and louder the noise, faster and faster the dance becomes, until at last they madly whirl about, leaping over each other in excitement. After a brief spell the energy of the dancers begins to abate, and shortly afterwards they cease, and stand or move about very quietly, until they are again started by one of their number leading off, as human dancers are observed to do during the intervals of rest between their performances.

The whole operation reminds the looker-on so strongly of a Cree dance as to suggest the possibility of its being the prototype of the Indian exercise. The space occupied by the dancers is from fifty to a hundred feet across, and as it is returned to year after year the grass is usually worn off, and the ground trampled down hard and smooth. "Dancing" is indulged in at any time of the morning or evening in May, but it is usually at its height before sunrise.

The meetings of the sage grouse begin early in March, and sometimes in the latter part of February—in fact,

long before the snow has disappeared. While not at any time what might be called a graceful bird when on the ground, the sage cock during this season, when actively engaged in his courtship, is unquestionably a most peculiar-looking creature. At one of the March meetings of sage grouse the performance of a single cock while paying court to several hens near him was carefully observed, and is thus described:—

His large pale yellow air sacs were fully inflated, and not only expanded forward, but apparently upward as well, rising at least an inch above his head, which consequently, being scarcely noticeable, gives the bird an exceedingly comical appearance. He looks decidedly top-heavy and ready to topple over at the slightest provocation. The few long spiny feathers along the edges of the air sacs stand straight out, and the greyish white of the upper parts show in strong contrast with the black of the breast. His tail is spread out fan-like, at right angles from the body, and is moved from side to side with a slow, quivering movement. The wings are trailed on the ground. While in this position he moves around with short, stately, and hesitating steps, slowly and daintily, evidently highly satisfied with his performance, uttering at the same time low, grunting, guttural sounds, somewhat similar to the purring of a cat when pleased, only louder. This performance is kept up for some ten minutes at a time.

The cocks of the pinnated grouse, which have similar morning assemblies, carry on their courting in a fashion very like to that generally adopted by the males of most other grouse, and, therefore, make great use of their ornaments, the air sacs, which they display to the best advantage before the hens at these love meetings.

Then it is that the proud cocks, in order to complete their triumph, rush forward at their best speed for two or three rods through the midst of the hens, pouring out as they go a booming noise, almost a hoarse roar, only more subdued, which may be heard for at least two miles in the still morning air. This heavy, booming sound is by no means harsh or unpleasant; on the

contrary, it is soft and even harmonious. When standing in the open prairie at early dawn, listening to hundreds of different voices pitched in different keys, coming from every direction and from various distances, the listener is rather soothed than excited. If this sound is heavier than the deep key-notes of a large organ, it is much softer, though vastly more powerful, and may be heard at a much greater distance. One who has ever heard such a concert can never after mistake or forget it.

Every few minutes this display is repeated. Not only one, but often more than twenty cocks may be seen going through this remarkable and comical performance at one and the same time, when, however, they seem careful not to run against each other, for their passionate excitement has not yet reached the fighting point. After a little while the hen birds begin to show an interest in the proceedings by moving about quickly a few yards at a time, and then standing still a short time. When these actions are continued by a larger number of birds simultaneously, their performance is very striking, and the spectator may easily imagine that the birds are moving to the measure of music.

The party breaks up when the sun is half an hour high, to be repeated the next morning, and every morning for a week, before all make satisfactory matches.

Towards the latter part, more especially, of the love season, fighting takes place among the cocks. Two may have fallen in love with the same hen, whose modesty prevents her from choosing between them, and hence she leaves them to fight it out. But, in fact, throughout the mating season the males fight each other more or less persistently, and the victor valiantly defends his chosen home against intrusion. The males of the ptarmigan, or rock grouse, the breeding range of which includes both shores of Baffin Bay, Davis Strait, and Hudson Strait, "engage in most desperate battles; the engagement lasts for hours or until one is utterly exhausted, the feathers of

the head, neck, and breast strewing the ground." Referring to the white-tailed ptarmigan, Mr. Evans Lewis, who found a nest of this bird in the vicinity of the Chicago lakes, Colorado, at an altitude of over twelve thousand feet, says, "Should two males meet they immediately commence fighting, and continue the contest till one finally drives the other away."

Sometimes a pursued bird has recourse to the ruse of leading its pursuer off a great distance and then suddenly flying back to the female, which sits or feeds as unconcerned as it is possible for a bird to be. She acts as a thoroughly heartless coquette while he is a passionately devoted lover. In short, during nearly the whole pairing time there is fighting for the favor of the coveted females by the males until they are suitably matched and the nesting season arrives.

During the nesting season even the females of the Canada grouse, at all events, are very quarrelsome, and at this time, if they are confined in an enclosure, more than two or three cannot be kept in the same pen; in July they may be all turned together again, and they will agree very well until the following March.

Successful courtship is quickly followed by serious engagements, and, these being effected, the interval between them and marriage is very brief, and the paired birds go off into the seclusion of the woods or prairies. They soon, however, reappear; evincing a consciousness of new responsibilities, and intent on discharging the new duties the presentiment of which nature is rapidly awakening. As the wedded pairs of the highest form of mammalia prepare for the family life which they anticipate by the establishment of a home, so their winged prototypes, exemplifying the truth that "coming events cast their shadows before," prepare suitable dwelling-places for the reception and development of expected, but as yet unseen, strangers, the advent of which is prophesied by mysterious intuitions, the nature and source of which we may never know.



The vast family of gallinaceous birds give, as a general rule, but scant attention to the construction of their nests, which usually are placed on the ground; but referring to the Californian partridge, Mr. W. E. Bryant, while recognizing that it is essentially a ground-building species, states that several cases have come under his notice of its nesting in trees, upon the upright end of a broken or decayed limb, or at the intersection of two large branches. A few years ago a brood was hatched in, and safely conducted away from, a vine-covered trellis at the front door of a popular seminary! How the parents managed to get the tender young down to the ground is not known.

Ordinarily the nest consists of a saucer-shaped cavity, more or less deep, but generally shallow. It is lined with grasses or with bits of grain stubble, to which, not unfrequently, are superadded a few feathers, plucked, probably, by the birds from themselves. The nest is well hidden, arched over naturally by overhanging vines, bushes, or weeds, and usually open on one side. Occasionally a nest is arched over artificially, but in most cases where there is no natural cover existing no dome is attempted. Sometimes the male bird constitutes himself the builder; in 1887 Judge John Clark, of Saybrook, Connecticut, wrote to Captain Bendire:—

I found a male Bob White building a nest in a little patch of dewberry vines. He was busy carrying in the grass and weaving a roof, as well as whistling at his work. The dome was very expertly fashioned, and fitted into its place without changing the surroundings, so that I believe I should never have observed it had he kept quiet.

The cock mourning dove seems to give no assistance in nest-building, but leaves his mate to do all the work; he merely looks on and coos during its performance.

Quickly after the nest is completed the hen begins to deposit her eggs; usually she increases their number by adding one every other day until from ten to fifteen occupy the nest. Then

succeeds her duty of incubation, which lasts about three weeks. During this trying period the attentions and devotion of her mate are in many cases very remarkable, as are those of the cock ptarmigan (Reinhardt's), for example, which will rather die than forsake his mate's side, and often places himself between the hunter and her, uttering notes of warning for her to escape while attention is drawn to him, who is more conspicuous.

The appearance of the plumage of the sitting hens of the quail family generally harmonizes so wonderfully with the appearance of the surrounding vegetation that any one passing quite near them is unlikely to see them. In many cases travellers approach them so closely as to be in danger of stepping upon them before they are discovered. Mr. A. W. Anthony, when writing to Captain Bendire, observes, "Although devoid of protection from bush or shrub, so nearly does the sitting bird resemble the grey boulders which surround her on every side that the discovery of the nest is due largely to accident." When the bird is incubating it is nearly impossible to flush her, or so to frighten her as to make her fly from her nest. "Twice have I escaped stepping upon a sitting ptarmigan by only an inch or so," writes one observer, "and once I reined in my horse at a time when another step would have crushed out the life of a brood of nine chicks but an hour or so from the egg."

When the young are with the parents they rely upon their color to hide themselves among the nearly similar vegetation from which they procure their food. They seem to know at once whether or not they are seen; if not, they sit absolutely still and thus aid in escaping detection. Captain W. L. Carpenter, United States army, reports as follows:—

I was standing alongside a sage bush, watching butterflies, several times looking down carelessly without seeing anything unusual, when, happening again to glance at the foot of the bush in the very place before observed, I saw the winking of an eye. Looking more intently, I discovered

a greyish mass, blending perfectly with the color of the bush, which outlined itself into the form of a sage-hen not two feet from my foot. She certainly would have been overlooked had not the movement of her eyelids attracted my attention.

Maternal solicitude is strikingly evinced by the grouse. A traveller with his dog Rock suddenly came on a nest of the sooty grouse within three feet of him, containing two chicks and seven eggs on the point of hatching.

It was as touching a sight [he wrote] as I have ever seen; the poor bird, although scared nearly to death, with every feather pressed close to her body, and fairly within reach of the dog, still persisted in trying to hide her treasures, and her tender brown eyes looked entreatingly on us rude intruders; and if eyes can speak hers certainly pleaded most eloquently for mercy. She let me almost touch her before she fluttered off her nest, feigning lameness, and disappeared in the undergrowth. . . . I vacated the vicinity and took up a position some fifty yards in an opposite direction from that the bird had taken, to watch further proceedings. The grass was so short that it did not hide the bird, which, after waiting perhaps ten minutes, came slowly creeping and crouching towards the nest, and covered the eggs again. I did not disturb her further.

Several examples of co-operative incubation have been recorded—two hens making use of the same nest; and the way the Canada grouse will steal eggs from one another would do credit to a London pickpocket. Two hens had their nest near together—perhaps two feet apart—and as each had laid every other day one nest would be vacant while the other would be occupied. The hen that laid last would not go away until she had stolen the nest egg from the other nest and placed it in her own. A hen was once seen to attempt to steal an egg from another nest that was twenty feet away. She worked persistently at it for half an hour or more, but did not succeed in moving the coveted egg more than about eight feet—the way being uphill. The egg so frequently got away from her and rolled back a foot or more

each time that at last she got disgusted and gave up the task.

On going to the pen one evening [says the writer who mentions the fact just cited] I found one of the hens on the nest, and I knew she was beginning to sit, as all the others had gone to roost. Slipping my hand under her, I found three eggs—the nest egg, the one just laid, and the one stolen from the other nest. I picked two of them up and held them before her, when she at once placed her bill over the one I held between my thumb and forefinger and tried to pull it out of my hand. I did not let her have it, however, and she immediately stepped upon the side of the nest, and placing her bill over the remaining egg, drew it out of the nest and pushed it back out of sight, as much as to say, "You have two, and that is all you can have." I must confess that it was with great reluctance that I took these eggs from her, she pleaded so hard for them.

The young are able to run about almost as soon as hatched, and sometimes one of them may be seen out of the nest with a part of its shell adherent to its back. The instinctive impulse of the young chicks when in presence of danger to hide themselves instantly is very remarkable. No lesson in this subject by the mother to her children is needed; when emerging from the egg they already know how to protect themselves from danger by hiding under leaves or tufts of grass, beneath which they lie close to the ground until the danger is past. They are wonderfully wary, and, what is especially astonishing, they understand at once the mother's note of warning when danger threatens and quickly render themselves invisible; they understand equally well the significance of the sounds uttered by the mother when she calls them together again. When alarmed by a hawk sailing overhead they prudently avoid trusting themselves to the concealment afforded by leaves or grass, but rush for protection beneath their mother's wings. Their knowledge how to save themselves from threatening dangers is undoubtedly intuitive, or inherited from preceding generations; but when we ask, How did that knowledge primarily

originate? we get no response; reason cannot tell us, and we are left in the vast region of mystery without even the smallest clue to the solution of the problem. We are easily tempted to ask questions of this kind respecting animals the lives and habits of which we may happen to study with special interest; but, indeed, the instinctive actions of animals, generally, are so marvellous and so inexplicable that their causative agency is in each case so shrouded in impenetrable mystery as to baffle our utmost efforts to discover its real nature and genesis.

The male Bob White is especially attentive to his partner, and sometimes even "takes the whole duty of incubation upon himself should some accident befall the female, which unfortunately happens only too often." This fact is attested by Dr. William C. Avery, of Greensborough, Alabama, who wrote to Captain Bendire as follows:—

In June, 1886, while on a visit to Dr. J. M. Pickett, of Cedarville, Alabama, this gentleman informed me of having seen a male Bob White incubating; he had visited the nest at various times during the day, and on different days, and always found the male on the nest. Wishing to be an eye-witness of so interesting a phenomenon, I rode several miles with the doctor to see this male Bob White on his nest. There we found him faithfully warming his treasures, but not into life; the eggs were never hatched. Dr. Pickett went frequently to the place, until long after the period of incubation had elapsed; and finding that the eggs would not hatch, he destroyed them, to prevent the useless occupation of the nest by the male. The female had probably been dead some hours, and the eggs were cold before the male took the nest; hence they did not hatch.

Referring to this interesting statement, Captain Bendire remarks:—

The fact that the male Bob White takes occasionally the entire duties of incubation on himself, should the female be killed, appears not to be an unusual occurrence with this species, at least two similar instances having come under the observation of other parties.

The solicitude of the male Bob White is exemplified by his proceedings de-

scribed in the following letter by Mr. W. M. Wolfe, of Kearney, Nebraska, addressed to Captain Bendire:—

Here the male takes the young to the wheat fields and stubble early in July; at first they return to the bush for the night, but as soon as harvesting fairly commences they spend all their time in the fields, huddling together at night in the open. Here they form a circle with their heads out, and crowd close together. The male remains outside the ring and close at hand.

The male of the scaled partridge evinces an especially delicate attention to his spouse during the hatching time. The mating season begins sometimes as early as March, and after the female commences laying, generally about six weeks later, the male at about sundown every fine evening mounts a convenient bush or rock and calls his mate, who approaches noiselessly, and they disappear together. The conduct of the Californian partridge is essentially the same. According to Mr. W. Otto Emerson, of Haywards, California, the male makes his appearance "twice a day near the nesting site, first at break of day, when he gives his call-note, 'kuck-ku, kuck-ku';" the female then comes off an hour, and the same is repeated at dusk." And Mr. C. A. Allen, of Nicasia, Maria County, California, says:

While the female is incubating the male usually mounts some old stump, a dead limb, or fence post in the vicinity of the nest, and every few seconds utters a long-drawn note not unlike "whaa-whaa." . . . During incubation the male of the valley partridge is very attentive, usually taking an elevated position near the nest, where, with crest erect and tail spread, he bids defiance to all intruders, uttering an oft-repeated "whew-whew-whew." When the brooding hen leaves her nest to be fed, should he be absent from the post of duty, her cry of "tobacco, tobacco," very plainly given, brings him up at once.

When occasionally the plumed partridge has two broods during the season, the male cares for the first one while the female is busy hatching the second.

In 1883 [says Mr. Allen] I met with a brood of young birds in Oregon. The male

who had charge of them performed the usual tactics of feigning lameness, and tried his very best to draw my attention away from the young; and, seeing I paid no attention to him, showed a great deal of distress. The young scattered promptly in all directions, and the majority were most effectually hidden in an instant.

The male passenger pigeon as well as the band-tailed and red-billed pigeon co-operate in the duty of incubation, and do so in respect to time with remarkable regularity and punctuality. The hen occupies the nest from about two o'clock in the afternoon until nine or ten the following morning; the cock undertakes the duty during the intervening period.

The change is made with great regularity as to time, all the males being on the nest by 10 A.M. . . . The sitting bird does not leave the nest until the bill of the incoming mate nearly touches its tail, the former slipping off as the latter takes its place. The old birds never feed in or near the nesting-place, but leave all the beechnuts, acorns, etc., there for their young. Many of them go a hundred miles each day for food.

In an account of the breeding of the wild pigeon in confinement Mr. F. J. Thompson, having charge of the Zoological Gardens at Cincinnati, mentions the co-operation of the cock in preparing the nest.

During the spring of 1887 the society purchased three pairs of trapped birds, which were placed in one of the outer aviaries. Early in March, 1888, I noticed that they were mating, and procuring some twigs I wove three rough platforms and fastened them up in convenient places, at the same time throwing a further supply of building material on the floor. Within twenty-four hours two of the platforms were selected, the male carrying the material, whilst the female busied herself in placing it.

The cock mourning dove pays devoted court to his mate at all times, and there are grounds for the belief that many couples remain paired throughout the year, as single pairs may be seen in winter as well as summer; indeed, it is not improbable that they remain paired for life, as, in the opinion

of competent observers, the Mexican ground doves do.

The young of the passenger pigeon are forced out of their nests by their parents as soon as they are strong enough to bear the expulsion. The cock generally undertakes this, presumably painful, duty. He pushes the young off the nest. "The latter struggles and squeals precisely like a tame squab, but is finally crowded out along the branch, and after further feeble resistance flutters down to the ground."

I am sorry to mention, to the disgrace of the male Mexican turkeys, that they not only leave their mates to attend exclusively to the duties of incubation, giving no assistance whatever, but that, according to trustworthy observations, "they often destroy the eggs and tender young." This eccentric and unnatural conduct is, perhaps, explicable on the charitable supposition that the Mexican turkeys of both sexes suffer from an hereditarily transmissible mental disorder, specially manifested in the male by the criminal act just mentioned; for evidently the brains of both sexes are easily turned. "I have been told," writes Mr. Herbert Brown to Captain Bendire, "that coyotes [prairie wolves] catch these turkeys by running in circles under their roosting-trees, till the birds get dizzy with watching them and fall down. I never saw it done, but have been assured that it is a fact."

One of the most remarkable and astonishing practices of the members of the grouse family is that of feigning lameness in order to lure the attention of an enemy or intruder from the nest or young brood when in danger. Mention has already been made of a cock bird which had charge of a brood of chickens, and which, being disturbed by the approach of a gentleman, feigned lameness, and "tried his very best" to draw the intruder's attention away from the young. Such a proceeding by the male parent is, we believe, comparatively rare; but the female adopts it on all, or almost all, occasions of apparent danger. If, when she is on the nest, a supposed enemy approaches,

she starts away, and by her surprising tactics generally succeeds in baffling him completely. Mr. Ernest E. Thompson, of Toronto, Canada, in his description of the Canadian ruffed grouse, observes :—

Every field man must be acquainted with the simulation of lameness, by which many birds decoy, or try to decoy, intruders from their nests. This is an invariable device of the partridge, and I have no doubt that it is quite successful with the natural foes of the bird ; indeed, it is often so with man. A dog, as I have often seen, is certain to be misled and duped, and there is little doubt that a minx, skunk, racoon, fox, coyote, or wolf would fare no better. Imagine the effect of a bird's tactics on a prowling fox ; he has scented her as she sits, he is almost upon her, but she has been watching him, and suddenly, with a loud "whirr," she springs up and tumbles a few yards before him. The suddenness and noise with which the bird appears causes the fox to be totally carried away ; he forgets all his former experience, he never thinks of the eggs, his mind is filled with the thoughts of the wounded bird almost within his reach ; a few more bounds and his meal will be secured. So he springs and springs, and very nearly catches her, and in his excitement he is led on and away till finally the bird flies off, leaving him a quarter of a mile or more from the nest. If, instead of eggs, the partridge has chicks, she does not await the coming of the enemy, but runs to meet and mislead him ere yet he is in the neighborhood of the brood ; she then leads him far away, and, returning by a circuitous route, gathers her young together again by her clucking.

Mr. Manly Hardy states that if the young are disturbed when only a few days old,

the hen immediately flies at the intruder, making a loud noise, often striking him in the face or breast. . . . She throws herself on her breast and kicks herself along with her feet, aided by her spread wings, making a loud squealing noise. She goes just fast enough so that the pursuer cannot get his hand on her, recovering, in a rod or two, to seem only broken-winged, and a distance further on suddenly darting off. If one keeps quiet, in a short time she returns to the vicinity and calls her chicks, who come out of their hiding-places and rejoin her.

If the female willow ptarmigan be approached,

she crouches to the ground amongst her brood, and if she sees it impossible to escape notice she rolls and tumbles away as though mortally injured, and thus tries to lead one from her chicks.

In feigning lameness or other bodily injury when apprehensive of danger the American pigeons resemble the grouse. Referring to the red-billed pigeon, an observer of it writes :—

It was not until I had approached within arm's length of her nest that the bird arose, and, tumbling heavily into the bushes, fluttered away over the ground in capital feint of injury, in order to attract attention away from her nest.

Concerning the mourning dove, it is stated that

if the sitting bird be flushed she will tumble from the nest with piteous cries and in a very dilapidated condition.

The ground dove displays an essentially similar characteristic. Dr. W. L. Ralph writes :—

When one is driven from a nest containing eggs it will drop to the ground as if shot, and will then flutter around as if wounded, to try to draw the person disturbing it away from the nest, but, whether it succeeds or not, it will soon fly off. When a nest contains young, however, the bird will become almost frantic with anxiety, and will tumble around until it appears to be nearly exhausted. I have often refrained from taking nests that I have wanted on account of the evident distress of the parent birds.

All life—indeed, all nature—is a mystery ; but some facts of life impress the observer as being especially mysterious and wonderful, and the facts just described seem to be pre-eminently of that class. A bird that will pretend to be lame, that will pretend that it is otherwise suffering some grave bodily injury, that being scented as she sits by a fox which is almost upon her will suddenly spring up and tumble a few yards before him, will then spring and tumble again repeatedly, keeping herself so short a distance in advance of him as to make him sure of catching



her, and finally, having lured him away a long distance from her treasures, will suddenly fly off, leaving him baulked and confounded while she regains her nest, is a bird seemingly endowed with reasoning and executive power far beyond that which we are wont to ascribe to even the most intelligent member of the class *Aves*. We ask, in astonishment, whence did the quail derive this marvellous intuition? All we know is that it is inherited from a preceding generation; but if we go back for any number of generations we get no nearer to a conception of how an idea of the remarkable device in question first originated in the bird's brain, and can only exclaim with Tennyson, "Behold, we know not anything."

The courage with which the mothers protect their young broods and attack intruders is alike remarkable and interesting. Mr. Hardy reports:—

I saw a ruffed grouse with a brood of young attack an Indian dog and drive him off. The dog suddenly ran on the bird with her brood. She certainly looked the very incarnation of fury; every feather in her body was standing on end, as, perfectly reckless of consequences, she fairly flew at the dog; but she was so quick and nimble in her movements that she escaped all harm, and actually compelled the dog, by various peckings on the legs and head, to turn tail and run.

Mr. Evans Lewis mentions that when running after a young white-tailed ptarmigan, near a fortnight old, he was attacked by its mother, which flew round his head and approached close enough to knock his hat off. Referring to the Columbian sharp-tailed grouse, an observer of it mentions that the female is exceedingly devoted to her young brood, and that he saw one boldly attack his dog, which happened to run into a covey about a week old. Mr. W. G. Smith, writing to Captain Bendire, remarks concerning the sage grouse, "The female is devoted to her young, and will protect them at the risk of her life." He caught six young chickens, probably about four days old. Their mother flew at his legs, and followed him two hundred yards to where

his wagon was standing, making continuous hostile demonstrations.

The food of the grouse, and generally of the pigeons and doves of North America, consists mainly of three kinds: (1) fruits of various kinds, including blackberries, blueberries, raspberries, and elderberries early in the season, and later in the year various other berries, as well as wild grapes; (2) beech-nuts, chestnuts, acorns, wheat, and other seeds of various kinds; (3) the buds of various trees, and the foliage of plants—that of clover, strawberry, buttercup, winter-green, peppermint, and partridge-berry predominating.

The Canadian ruffed grouse feed not only on the buds of the poplar but also on the old hard leaves of it; these they eat continuously until the last of them have fallen, late in October even, when other food is abundant. During the winter these birds, as well as the sage grouse, live almost entirely on the leaves of the sage bush (*Artemisia*), which usually grows to the height of two or three feet in some of the richer valley lands. (4) The whole, or nearly the whole, of the grouse family are decidedly carnivorous; they devour an immense number of grasshoppers and crickets; they also eat beetles and ants (especially the winged females of the latter, of which the Texan Bob White is very fond), various other insects, caterpillars, earthworms, and small snails.

As birds have no teeth they do not masticate their food before swallowing it. It needs, therefore, to be subjected to a grinding process by the gizzard. The absence of teeth in this organ is compensated for by the presence in it of small, hard, pebbly substances which the birds pick up, and by means of which they triturate the hard parts of the food, and thus facilitate their assimilation. Where gravel abounds birds keep the gizzard supplied with the needful little pebbles, but on the "Big Plain" of North America stones of any kind are unknown, and in nearly all parts of Manitoba gravel is unattainable during the winter. Fortunately

for the birds, nature supplies a substitute for gravel by means of the wild prairie rose (*Rosa blanda*), "which is abundant everywhere; and the ruddy hips, unlike most fruits, do not fall when ripe. Besides being sweet and nutritious, they contain a number of small, angular, hard seeds which answer perfectly the purpose of gravel." Mr. Ernest E. Thompson, who has given special attention to the prairie sharp-tailed grouse of Manitoba, has examined its gizzard during every month of the year, and found it to be always provided with rose hips.

Twenty years ago the enormous number of the birds in North America excited extreme astonishment, and has been adverted to by many writers. The vast breeding colonies of the wild pigeon frequently covered the forest for miles together. Mr. S. B. Stevens, of Cadillac, a veteran pigeon-netter of large experience and a man of high reputation for veracity and carefulness of statement, gave in 1888 the following testimony to Mr. William Brewster, who published it in his article "On the Present Status of the Wild Pigeon, etc.:"—

The largest nesting he ever visited was in 1878 or 1877. It began near Petosky, and extended north-east past Crooked Lake for twenty-eight miles, averaging three or four miles wide. The birds arrived in two separate bodies, one directly from the south by land, the other following the east coast of Wisconsin and crossing at Manitou Island. He saw the latter body come in from the lake at about three o'clock in the afternoon. It was a compact mass of pigeons, at least five miles long by one mile wide. The birds began building when the snow was twelve inches deep in the woods, although the fields were bare at the time. So rapidly did the colony extend its boundaries that it soon passed literally over and around the place where he was netting, although when he began this point was several miles from the nearest nest. Nestings usually start in deciduous woods, but during their progress the pigeons do not skip any kind of trees they encounter. The Petosky nesting extended eight miles through hard-wood timber, then crossed a river bottom wooded with arbor vitæ, and thence stretched through white pine woods about twenty

miles. For the entire distance of twenty-eight miles every tree of any size had more or less nests, and many trees were filled with them. None were lower than about fifteen feet above the ground.

At least five hundred men were engaged in netting pigeons during the great Petosky nesting of 1881. Mr. Stevens thought that they may have captured on an average twenty thousand birds apiece during the season. Sometimes two car-loads were shipped south on the railroad each day. Nevertheless he believed that not one bird in a thousand was taken. Hawks and owls often abound near the nesting. Owls can be heard hooting there all night.

On one occasion an immense flock of young birds became bewildered in a fog while crossing Crooked Lake, and, descending, struck the water, and perished by thousands. The shore for miles was covered a foot or more deep with them. The old birds rose above the fog and none were killed.

The battle of life, or the struggle for existence, in the animal kingdom results in such a check by the various species on the growth of each other as to maintain to a large extent a fair balance of the contending forces, although it happens from time to time that some species are crowded out of existence. In their primeval dwelling-places the grouse have, of course, many enemies, which prevent their numbers from becoming unduly excessive. Among such enemies may be mentioned the fox, cat, minx, weasel, and squirrel; birds of prey, comprising certain hawks and owls, which destroy either the eggs or the young; and numerous snakes, including, especially, rattlesnakes, which are terrible enemies. One of them, when killed, was found to have swallowed five Texan Bob Whites at one meal; another contained four Bob Whites and a scaled partridge. But of all living enemies man is at once the most powerful and immeasurably the most fatal. I shall advert to his destructive work shortly. Meanwhile I must add a few words concerning the influence of wet and cold seasons, and prairie fires.

During wet springs the nests, which are generally on the ground, are often

inundated, especially if they be in valleys or on low grounds. The following fact is a striking example of this truth: Mr. J. W. Preston, of Baxter, Iowa, records that several years ago he frightened a prairie hen from her nest of eggs in a marsh that was subject to overflow; the nest was entirely submerged and the bird was incubating the cold eggs! Not eight feet distant, on a tussock, a marsh hawk was waiting for her clutch of eggs. The number of eggs and of newly hatched chickens which are destroyed during and in consequence of wet seasons must be enormous; and the effects of exceptionally cold seasons are probably not less destructive. On the high plateaux where the white-tailed ptarmigan is found the wind often blows with a tremendous sweep, and is almost strong enough to throw down a man. Suffering from the extreme cold when such a wind is blowing, the ptarmigan have learnt to dig out for themselves little nests or hollows in the snow banks; they lie with their heads towards the wind, and are thus greatly protected from it, but such snowy refuges must at best be terribly cold. In some years the spring season begins especially early, and the warm weather is often succeeded temporarily by a return of wintry cold. As the love-making of the grouse commences habitually before the snow has completely disappeared, incubation is apt to occur exceptionally early in the year, and meanwhile to be overtaken, therefore, by the return of cold northern blasts, which often prove fatal to a large number of newly hatched chicks, and sometimes to the too devoted mother, as appears from the following authentic and pathetic fact, viz., that a hen was discovered sitting on her nest of eggs, she and her eggs being quite frozen to death. In some years the winter cold proves terribly destructive. Mr. A. C. Lowell, writing to Captain Bendire, thus refers to its effect on the valley partridge:—

In the winter of 1887-8 about two feet of snow fell, followed by three very severe nights, in which the thermometer reached 28° below zero. This killed most of these

birds. In the following fall I heard of but three or four coveys of quail within a radius of sixty miles where thousands had been the year before.

The most destructive agents of the nests of the justly designated "valuable bird," the prairie hen, as well as of various other kinds of grouse, are the prairie fires, which often occur and commit fearful ravages. Many of the stock men do not burn their hay ground until the middle of May, and hence thousands of eggs are destroyed every year. Moreover, many nests with eggs are yearly ploughed up, and thus the general loss is increased.

In spite, however, of all adverse influences, some species of grouse seem not only to maintain their position effectually, but actually to spread themselves increasingly over wide territories. The quail, known throughout the United States as the Bob White, is steadily advancing westward, southward, and northward. It is now found in Colorado, Utah, California, northern New Mexico, and Oregon. In fact, it evidently makes itself at home in any country where the climate is not too severe in winter.

On the other hand, the evidence that a great decrease of bird life has long been going on in North America is irresistible. In former times the heath hen used to be seen in autumn in "packs" comprising from one hundred to two hundred birds in each; now the number in a covey rarely exceeds six or eight. In Oregon, Washington, and Idaho, where the Columbian sharp-tailed grouse used to be exceedingly abundant a decade ago, it is every year becoming rarer, and, at the present rate of decrease, it will not be long before the bird will be numbered among the game birds of the past. Similar testimony concerning the rapidly increasing scarcity of this bird is tendered by various observers, among whom may be mentioned Mr. Denis Gale, and Mr. W. M. Wolfe, of Kearney, Nebraska; the last-named gentleman says that this bird "has retired before civilization, and the pinnated grouse has taken its place." The breeding range of the

wild turkey, the largest and finest of American game birds, is yearly becoming more restricted, and, at the present rate of decrease, the total extinction of this bird east of the Mississippi and north of the Ohio River is only a question of a few years. Throughout Missouri and Kansas it is already nearly exterminated. It used to be found in Nebraska; none occur there now. Dr. W. L. Ralph, of Utica, New York, writes:—

Fifteen years ago I found the wild turkey abundant in most parts of Florida . . . but they have gradually decreased in numbers since then, and, though still common in places where the country is wild and unsettled, they are rapidly disappearing from those parts in the vicinity of villages and navigable waters.

The ground doves are constant residents of Florida, and ten or fifteen years ago they were abundant throughout the central and northern parts of the state. They are still common, though fast decreasing in numbers, owing principally to the causes that are rapidly exterminating most Florida birds, viz., plume hunters and tourists.

Evidence is thus forthcoming from every part of the United States that the most important of their winged inhabitants are rapidly disappearing. The fact is a truly saddening one. There are certain causes conducing to their extinction which are inevitable. The gradual but rapidly increasing occupation of the land by the white man, or, as intimated by Mr. Wolfe, the "advance of civilization," is not only depriving the red man of his hunting-grounds, and thus ensuring his destruction, but at the same time is ousting the birds from their vast prairie homes, which they have occupied for countless centuries, and thus condemning them also to gradual extinction. This result is certainly being effected, and will, no doubt, sooner or later be accomplished. In any case it is a deplorable one, but it need not be hastened by the extraordinarily reckless and selfish conduct of the European invader. Of course, as the vast territories of the United States become occupied by white men, who

will use them for the growth of cereals and other vegetable products, or for grazing purposes, the former occupants of those territories will gradually migrate from them to regions in which they may still live, and, as birds are capable of ranging over vast areas, it is reasonable to suppose that of the dispossessed occupants they will suffer least by their expulsion from their former homes. But as the time approaches when the white man will become lord of all he surveys, the wild fowl, as well as other wild animals, will betake themselves to their last available refuges, there to meet their inevitable fate—gradual extinction. Even now, as we have seen, the number of birds is already fast diminishing; but though this process cannot be arrested it is within the power of the American people to lessen, as well as to increase, its rapidity.

Now, a vast number of birds are destroyed yearly for the sake merely of gratifying that baneful and detestable love of "sport," in the indulgence of which thousands of men pride themselves. Many birds are also destroyed for the sake of their plumage; but the most fell and wholesale destroyers of bird life are the men who kill the passenger pigeon by thousands and thousands for the sake of enriching themselves by their slaughter. The enormous "breeding colonies," or "pigeon roosts," as they were formerly called, frequently covering the forest for miles, and so often mentioned by naturalists and hunters in former years, are, like the immense herds of the American bison which roamed over the great plains of the West in countless thousands but a couple of decades ago, things of the past, never to be seen again. In fact, the extermination of the passenger pigeon has progressed so rapidly during the past twenty years that it looks now as if its total extermination might be accomplished within the present century. The immense destruction of this pigeon in a single year and at one roost only is thus described by Professor H. B. Roney in the *Chicago Field*:—

The nesting area, situated near Petosky, covered something like 100,000 acres of land, and included not less than 150,000 acres within its limits, being in length about forty miles by three to ten in width. The number of dead birds sent by rail (in 1878) was estimated at 12,500 daily, or 1,500,000 for the summer, besides 80,352 live birds; an equal number was sent by water. We have [says the writer], adding the thousands of dead and wounded not secured, and the myriads of squabs left dead in the nest, at the lowest possible estimate a grand total of 1,000,000,000 pigeons sacrificed to Mammon during the nesting season of 1878.

Captain Bendire is of opinion that the last-mentioned figure is far above the actual number killed during that or any other year; but even granting that only a million were killed at this roost the slaughter is appalling, and it is not strange that the number of this bird is now small compared with what it was in former years.

The question whether the American people will be content to look on with indifference while the beautiful and interesting feathered inhabitants of their country are being rapidly and wilfully destroyed is a question deserving grave consideration. And if evidence should be forthcoming that a large majority of the citizens of the great western republic are not consenting witnesses of the wilful destruction of these birds, two other questions arise: (1) Can this destruction be prevented? and (2), if it can, will the sovereign people insist on its prevention? It seems to me that both these questions may and ought to be answered in the affirmative. I fear that the adoption of an effective preventive measure by each of the forty-four States of the American Union separately is scarcely to be hoped for. Nevertheless three American States — viz., Wisconsin, Michigan, and Massachusetts — have done honor to themselves by taking the initiative in lessening, or attempting to lessen, the vast destruction continually going on; and even Cuba is rivalling these three American States by making a similar effort. But it is alleged that "the present laws of

Michigan and Wisconsin are simply worse than useless; for, while they prohibit disturbing the birds within their nesting, they allow an unlimited netting only a few miles beyond its outskirts during the entire breeding season." The experience of the Cuban legislation on this subject is like to that recorded of Wisconsin and Michigan; in Cuba the blue-headed quail dove "is constantly decreasing in numbers," writes Dr. Juan Vilarbo, professor of the University of Havana, and "it is continually persecuted, notwithstanding that it is protected at certain times by the hunting laws."

The breeding range of the heath hen, "the last remnant of a once more or less widely distributed race at various points in eastern Massachusetts, southern Connecticut, Long Island, New Jersey, and Pennsylvania," is at present limited to the island of Martha's Vineyard, Massachusetts, where these birds are "strictly protected by law." Nevertheless one of the Boston market men reported "that he has had as many as twenty from the Vineyard in a single season." Though within the limited area of the island of Martha's Vineyard the effort to preserve the heath hen from slaughter has approached nearly to success, the protective laws of Wisconsin and Michigan have, as stated above, proved abortive; and, in my opinion, the only measure at once practicable and likely to conduce to a successful coping with the evil is an act of Congress for the rigorous prevention of the bird slaughter going on. The proposal of such an act would probably evoke the vigorous opposition of the advocates and defenders of the doctrine of "State rights." As I am not an American politician I do not venture to offer an opinion on the practicability of this proposal, but commend the whole subject to the earnest attention of American statesmen and lovers not only of their great country, but also of its winged inhabitants, whose mournful procession to extinction they may, if they resolve to do so, indefinitely retard.

JOHN WORTH.



From *The Fortnightly Review*.

## THE WANDERINGS OF THE NORTH POLE.

ON a recent visit to Cambridge, Professor Barnard, the discoverer of the fifth satellite of Jupiter, exhibited at the Cavendish Laboratory his most interesting collection of photographs made at the Lick Observatory. These pictures were obtained by a six-inch photographic lens of three feet focus, attached to an ordinary equatorial, the telescope of which was used as a guider when it was desired to obtain a picture of the stars with a long exposure. Among the advantages of this process may be reckoned the large field that is thereby obtained, many of the plates that he exhibited being as much as four degrees on the edge. I am, however, not now going to speak of Barnard's marvellous views of the Milky Way, nor of the plate on which a comet was discovered, nor of the vicissitudes of Holmes's comet, nor of that wonderful picture in which Swift's comet actually appears to be producing, by a process of gemmation, an offshoot which is evidently adapted for an independent cometary existence. The picture to which I wish specially to refer in connection with our immediate subject is one in which the instrument was directed towards the Celestial Pole. In this particular case the clockwork which is ordinarily employed to keep the stars acting at the same point of the plate was dispensed with. The telescope, in fact, remained fixed while the heavens rotated in obedience to the diurnal motion. Under these circumstances each star, as minute after minute passed by, produced an image on a different part of the plate; the consequence of which was that the record which the star was found to have left, when the picture was developed, was that of a long trail instead of a sharply defined point. As each star appears to describe a circle in the sky around the Pole, and as, in the vicinity of the Pole, these circles were small enough to be included in the plate, this polar photograph exhibits a striking spectacle. It displayed a large number of concentric circles, or rather,

I should say, of portions of circles, for the exposures having lasted for about four hours, about one-sixth of each circumference was completed during that time. The effect thus produced was that of a number of circular arcs of varying sizes, and of different degrees of brightness. Most conspicuous amongst them was the trail produced by the actual Pole Star itself. It is well known, of course, that though the situation of the Pole is conveniently marked by the fortunate circumstance that a bright star happened during the present century to lie in the immediate vicinity of the veritable Pole, yet, of course, this star is not actually at the Pole, and consequently, like all the other stars, Polaris itself must be revolving in a circle whereof the centre lies at the true Pole. The brighter the star the brighter is the trail which it produces, so that the circle made by Polaris is much more conspicuous than the circles produced by the other stars of inferior lustre. It is, however, to be noted that some of the faint stars lie much closer to the Pole than Polaris itself. There is, indeed, one very minute object so close to the Pole that the circle in which its movements are performed seems very little more than a point when represented on the screen on which the slide was projected. The interesting circumstance was noted that there appeared to be occasional interruptions to the continuity of the circular arcs. This was due to the fact that clouds had interposed during the intervals represented by the interruptions. A practical application is thus suggested, which has been made to render useful service at Harvard College Observatory. Every night, and all night long, a plate is there exposed to this particular part of the sky, and the degree in which the Pole Star leaves a more or less complete trail affords an indication of the clearness or cloudiness of the sky throughout the course of the night. From the positions of the parts where the trail has been interrupted it is possible not only to learn the amount of cloudiness that has prevailed, but the particular hours

during which it has lasted. This interesting system of concentric polar circles affords us perhaps the most striking visual representation that could possibly be obtained of the existence of that point in the heavens which we know as the Pole. The picture thus exhibited was a striking illustration of the Copernican doctrine that the diurnal stellar movement was indeed only apparent, being, of course, due to the rotation of the earth on its axis.

Suppose that a photograph, like that I have been describing, were to be taken at intervals of a century, it would be found that the centre of the system of circles, that is to say, the veritable Pole itself, was gradually changing on the heavens. I do not by this mean that the stars themselves would be found to have shifted their places relatively to each other. No doubt there is some effect of this kind, but it is an insignificant one, and need not at present concern us. The essential point to be noticed is, that the stars which happen to lie in the vicinity of the Pole, would have a changed relation to the Pole in consequence of the fact that this latter point is itself in incessant movement. At the present time the Pole is advancing in such a direction that it is getting nearer to the Pole Star, so that the actual circle which the Pole Star is describing is becoming less and less. The time will come when the circle which this star performs will have reached its lowest dimensions, but still the Pole will be moving on its way, and then, of course, the dimensions of the circle traversed by the Pole Star will undergo a corresponding increase. As hundreds of years and thousands of years roll by the Pole will retreat further and further from the Pole Star, so that in the course of a period as far on in the future as the foundation of Rome was in the past, the Pole will be no longer sufficiently near the Pole Star to enable the latter to render to astronomers the peculiar services which it does at present.

Looking still further ahead, we find that in the course of about twelve thousand years the Pole will have gained a

position as remote as it possibly can from that position which it now occupies. This most critical point in the heavens will then lie not far from the star Vega, the brightest point in the northern sky, and then it will commence to return, so that after the lapse of about twenty-five thousand years the Pole will be found again in the same celestial neighborhood where it is tonight, having, in the mean time, traversed a mighty circle through the constellations. In all this there is no novelty; these movements of the Pole are so conspicuous that they were detected long before the introduction of accurate instruments. They were discovered so far back as the time of Hipparchus, and the cause of them was assigned by Newton as one of the triumphs of his doctrine of universal gravitation. In giving the title of "*The Wanderings of the North Pole*" to this paper I did not, however, intend to discourse of the movements to which I have hitherto referred. They are so familiar that every astronomer has to attend to them practically in the reduction of almost every observation of the place of a celestial body. It was, however, necessary to make the reference which I have done to this subject in order that the argument on which we are presently to enter should be made sufficiently clear. It must be noted that the expression, "*the North Pole*," is ambiguous. It may mean either of two things, which are quite distinct. In the case we have already spoken of, I understand by the North Pole that point on the celestial sphere which is the centre of the system of concentric circles described by the circumpolar stars. The other sense in which the North Pole is used is the terrestrial one; it denotes that point on this earth which has been the goal of so many expeditions, and to reach which has been the ambition of so many illustrious navigators. We have a general notion that the terrestrial North Pole lies in a desolate region of eternal ice, somewhat relieved by the circumstance that for six months of the year the frozen prospect is brightened by perpetual

day, though on the other hand, during the remaining six months of the year this region is the abode of perpetual night. The North Pole is that hitherto unattainable point on our globe on which, if an observer could take his station, he would find that the phenomena of the rising and the setting of the stars, so familiar elsewhere, was non-existent. Each star viewed from the coign of vantage offered by the North Pole would move round and round in a horizontal circle; and the system of concentric circles would be directly overhead. In midsummer the sun would seem to revolve around, remaining practically at the same elevation above the horizon for a few days, until it slowly began to wend its way downwards in a spiral. In a couple of months it would draw near the horizon, and as day after day passed by the luminary would descend lower and lower until its edge grazed the horizon all round. The setting of the sun for the long winter would then be about to commence, and gradually less and less of the disc would remain perceptible. Finally the sun would disappear altogether, though for many days afterwards a twilight glow would travel round the whole hemisphere, ever getting less and less, until at last all indications of the sun had vanished. The utter darkness of winter would then ensue for months, mitigated only so far as celestial luminaries were concerned by starlight or occasional moonlight. Doubtless, however, the fitful gleams of the aurora would often suffice to render the surrounding desolation visible. Then as the spring drew near, if, indeed, such a word as spring be at all applicable to an abode of utter dreariness, a faint twilight would be just discernible. The region thus illuminated would move round and round the horizon each twenty-four hours, gradually becoming more and more conspicuous, until at last the edge of the sun appeared. Then, by a spiral movement inverse to that with which its descent was accomplished, the great luminary would steal above the horizon, there to continue for a period of six

months until the commencement of the ensuing winter. Indeed, the actual duration of apparent summer would be somewhat protracted in consequence of the effect of refraction in raising the sun visually above the horizon when in reality it was still below. The result would be to lengthen the summer at one end and to anticipate it at the other. Such would be the astronomical conditions at the North Pole; that anomalous point, from whence every other locality on the globe lies due south, that mysterious point which up to the present seems never to have been approached by man within a distance less than four hundred miles, unless, indeed, as is not improbably the case, the pre-glacial man who lived in the last genial period found a temperate climate and enjoyable conditions even at the latitude of  $90^{\circ}$ .

For our present purpose it will be necessary to get a very clear idea as to the precise point on the earth which we mean when we speak of the North Pole. As our knowledge of it is almost entirely derived from astronomical phenomena it is necessary to assign the exact locality of the Pole by a strict definition depending on astronomical facts. Supposing that Nansen does succeed in his expedition, as every one hopes that he will, and does penetrate within that circle of four hundred miles' radius where the foot of civilized man has never yet trod, how is he to identify that particular spot on this globe which is to be defined by the North Pole? It was for this purpose that at the commencement of this paper I referred to that photograph of the concentric circles which illustrated so forcibly the position of the Pole in the heavens. Imagine that your eye was placed at the centre of the earth, and that you had a long, slender tube from that centre to the surface through which you could look out at the celestial sphere; if that tube be placed in such a way that, when looking from the centre of the earth through this tube your vision was directed exactly to that particular point of the heavens which is the centre of the circle now

described by the Pole Star and the other circumpolar stars, then that spot in which the end of the tube passes out through the surface of the earth is the North Pole. Imagine a stake to be driven into the earth at the place named, then the position of that stake is the critical spot on our globe which has been the object of so much scientific investigation and of so much maritime enterprise. The reader must not think that I am attempting to be hyper-accurate in this definition of the North Pole; no doubt, in our ordinary language we often think of the Pole as something synonymous with the polar regions, an ill-defined and most vaguely known wilderness of ice. For scientific purposes it is, however, essential to understand that the Pole is a very definitely marked point, and we must assign its position accurately, not merely to within miles, but even to within feet. Indeed, it is a truly extraordinary circumstance that, considering no one, with the possible exception just referred to, has ever yet been within so many hundreds of miles of the Pole, we should be able to locate it so precisely that we are absolutely certain of its position to within an area not larger than that covered by a small town, or even by a good-sized drawing-room.

We have seen that the North Pole in the sky is in incessant movement, and that the travels which it accomplishes in the course of many centuries extend over a wide sweep of the heavens; this naturally suggests the question, Does the Pole in the earth move about in any similar manner, and if so, what is the nature and extent of its variation? Here is the point about which those modern researches have been made which it is my special object to discuss in this paper. Let us first see clearly the issue that is raised. At the time of the building of the Pyramids the Pole in the heavens was in quite a different place from its present position; the Pole Star had not at that time the slightest title to be called a pole star; in fact, the point around which the heavens revolved lay in a wholly different constellation. It was certainly not

far from the star Alpha Draconis about 3000 B.C., and we could indicate its position quite definitely if we had any exact knowledge as to the date of the Pyramids' erection. It is, however, plain that the difference was so patent between the celestial Pole at the time of the Pyramids and the celestial Pole of later centuries, that it could not be overlooked in attentive observation of the heavens. As the North Pole in the sky was, therefore, so different in the time of the Pharaohs from the North Pole in the time of Victoria, it is proper to ask whether there was a like difference, or any difference at all, between the terrestrial Pole at the time of the building of the Pyramids and that terrestrial Pole in whose quest Nansen is just setting off. If Pharaoh had despatched a successful expedition to the North Pole and driven a post in there to mark it, and if Nansen were now successful, would he find that the North Pole in the earth which he was to mark occupied the same position or a different position from that which had been discovered thousands of years previously? At first one might hastily say that there must be such a difference, for it will be remembered that I have defined the North Pole in the earth as that point through which the tube passes which would permit an eye placed at the centre of the earth to view the North Pole in the sky. If, therefore, the North Pole in the sky had undergone a great change in its position, it might seem obvious that the tube from the earth's centre to its surface which would now conduct the vision from that centre to the north celestial Pole would emerge at a different point of the earth's crust from that which it formerly occupied. We have here to deal with the case that arises not unfrequently in astronomy, in which a fact of broad, general truth requires a minute degree of qualification; indeed, it is not too much to say that it is in this qualification of broad general truths that many of the greatest discoveries in physical science have consisted. And such is the case in the present instance. There is a broad,

general truth and there is the qualification of it. It is the qualification that constitutes the essential discovery which it is my object herein to set forth. But before doing so it will be necessary for me to lay down the broad, general truth that the North Pole of the earth as it existed in the time of the Pharaohs appears to be practically the same as the North Pole of the earth now. It seems perfectly certain that at any time within the last ten thousand years the North Pole might have been found within a region on the earth's surface not larger than Hyde Park. Indeed, the limits might be drawn much more closely. It is quite possible that many an edifice in London occupies an area sufficiently great to cover the holes that would be made by all the posts that might be driven to mark the precise sites of the North Pole on the earth not only for the last five or ten thousand years, but probably for periods much more ancient still. It is very likely that the North Pole at the time of the glacial epoch was practically indistinguishable from the North Pole now; in fact, the constancy, or sensible constancy I should, perhaps, rather say, of the situation of this most critical point in our globe is one of the most astonishing facts in terrestrial physics.

Let us, then, assume this broad, general fact of the permanency in the position of the North Pole, and deduce the obvious consequences it implies with regard to the earth's movement. At this point we find the convenience of the time-honored illustration in our geography books which likens the earth to an orange. Let us thrust a knitting-needle through the orange along its shortest diameter to represent the axis about which the earth rotates. Not only does the earth perform one revolution about this axis in the space of each sidereal day, but the axis itself has a movement. If the earth's axis always remained fixed, or never had any motion except in a direction parallel to itself, then the point to which it was directed on the sky would never change. We have, however, seen that

the Pole in the sky is incessantly altering its position; we are therefore taught that the direction of the earth's axis of rotation is constantly changing. To simulate the movement by the orange and knitting-needle we must imagine the orange to rotate around its axis once in that period of twenty-three hours and fifty-six minutes which is well known as the length of the sidereal day; while at the same time the knitting-needle, itself bearing, of course, the orange with it, performs a conical movement with such extreme slowness that not less than twenty-five thousand years is occupied in making the circuit. The movement, as has often been pointed out, is like that of a peg-top which rotates rapidly on its axis while at the same time the axis itself has a slow revolving motion. Thus the phenomena which are presented in the rotation of the earth demonstrate that the axis about which the earth rotates occupies what is, at all events, approximately a fixed position in the earth, though not a fixed position in space. We can hardly be surprised at this result; it merely implies that the earth acts like a rigid body on the whole, and does not permit the axis about which it is turning to change its position.

It will now be easily understood how it comes to pass that the position of the North Pole upon the earth has not appreciably changed in the course of thousands of years. The axis around which the earth rotates has retained a permanent position relative to the earth itself; it has, however, continuously changed, it is at this moment changing, and it will continue to change with regard to its direction in space. So far our knowledge extended up to within the last few years, but in these modern days a closer inquiry has been made into this, as into so many other physical subjects, and the result has been to disclose the important fact that, though the phenomena as just described are very nearly true, they must receive a certain minute qualification. Complete examination of this subject is desirable, not only on account



of its natural importance, but also because it illustrates the refinements of which modern astronomical processes are susceptible. I have stated the broad, general fact that the position of the terrestrial Pole undergoes no large or considerable fluctuation. But while we admit that no large fluctuation is possible, it is yet very proper to consider whether there may not be a small fluctuation. It is certain that the position of the Pole as it would be marked by a post driven into the earth to-day cannot differ by a mile from the position in which the same point would be marked last year or next year. But does it differ at all? Is it absolutely exactly the same? Would there be a difference not indeed of miles but of yards or of feet between the precise position of the Pole on the earth determined at successive intervals of time? Would it be the same if we carried out our comparisons not merely between one year and another, but day after day, week after week, month after month? No doubt the more obvious phenomena proclaim in the most unmistakable manner that the position of the Pole is substantially invariable. If, therefore, there be any fluctuations in its position, those could only be disclosed by careful scrutiny of minute phenomena which were too delicate to be detected in the coarser methods of observation. There is indeed a certain presumption in favor of the notion that absolute constancy in the position of the Pole need not be expected. Almost every statement of astronomical doctrine requires its qualification, and it would seem indeed unlikely that when sufficient refinement was introduced into the measurements the position of the Pole in the earth should appear to be absolutely unalterable. Until a very recent period the evidence on the subject was almost altogether negative; it was no doubt recognized that there might be some fluctuations in the position of the Pole, but it was known that they would only be extremely small, and it was believed that in all probability those fluctuations must be comprised within those slender

limits which are too much affected by inevitable errors of observation to afford any reliable result. Perseverance in this interesting inquiry has been at last rewarded; and as in so many similar cases we are indebted to the labors of many independent workers for the recent extension of our knowledge. We are, however, at present most interested by the labors of Mr. Chandler, a distinguished American astronomer, who has made an exhaustive examination into the subject. The result has been to afford a conclusive proof that the terrestrial Pole does undergo movement. Mr. Chandler has been so successful as to have determined the law of those polar movements, and he has found that when they are taken into consideration an important improvement in certain delicate astronomical inquiries is the result. These valuable investigations merit, in the highest degree, the attention, not only of those who are specially devoted to astronomical and mathematical researches, but of that large and ever-increasing class who are anxious for general knowledge with regard to the physical phenomena of our globe.

At first sight it might seem difficult indeed to conduct the investigation of this question. Here is a point on the earth's surface, this wonderful North Pole, which, so far as we certainly know, has never yet been approached to within four hundred miles, and yet we are so solicitous about the position of this Pole and about its movement that we demand a knowledge of its whereabouts with an accuracy which at first appears wholly unattainable. It sounds almost incredible when we are told that a shift in the position of the North Pole to the extent of twenty yards, or even of twenty feet, is appreciable, notwithstanding that we have never been able to get nearer to it than from one end of England to the other. Indeed, as a matter of fact, our knowledge of the movements of the Pole are derived from observations made not alone hundreds but even many thousands of miles distant. It is in such

observatories as those at Greenwich or Berlin, Pulkowa or Washington, that the determinations have been made by which changes in the position of the Pole can be ascertained with a delicacy and precision for which those would hardly be prepared who were not aware of the refinement of modern astronomical methods. I do not, however, imply that the observations conducting to the discoveries now about to be considered have been exclusively obtained at the observatories I have named. There are a large number of similar institutions over the globe which have been made to bear their testimony. Tens of thousands of different observations have been brought together, and by discussing them it has been found possible to remove a large part of the errors by which such work is necessarily affected, and to elicit from the vast mass those grains of truth which could not have been discovered had it not been for the enormous amount of material that was available. Mr. Chandler has discussed these matters in a remarkable series of papers, and it will be necessary for me now to enter into some little detail, both as regards the kind of observations that have been made, and the results to which astronomers have been thereby conducted.

Greenwich Observatory lies more than two thousand miles from the North Pole, and yet if the Pole were to shift by as much as the width of Regent Street, the fact that it had done so would be quite perceptible at Greenwich. Let me endeavor to explain how such a measurement could be achieved. In finding the latitude at any locality we desire, of course, to know the distance between the locality and the Equator, expressed in angular magnitude. But though this is distinctly the definition of latitude, it does not at once convey the idea as to how this element can be ascertained. How, for instance, would an astronomer at Greenwich be able to learn the angular distance of the observatory from the Equator? The Equator is not marked on the sky, and it is obvious that the observer must employ a somewhat indi-

rect process to ascertain what he wants. Here, again, we have to invoke the aid of that celestial Pole to which I have so often referred. Think of that point on the sky which is the common centre of the circles exhibited on Professor Barnard's photograph. That point is not indeed marked by any special star, but it is completely defined by the circumstance that it is the centre of the track performed by the circumpolar stars. We thus obtain a clear idea of this definite point in the sky, and the horizon is a perfectly definite line, at all events from any station where the sea is visible. It is not difficult to imagine that by suitable measurements we can ascertain the altitude of this point in the heavens above the horizon. That altitude is the latitude of the place; it is, in fact, the very angle which lies between the locality on the earth and the Equator. It is quite true that as the Pole is implied by these circles rather than directly marked by them, the measurement of the altitude cannot be effected quite directly. The actual process is to take the Pole Star, or some one of the other circumpolar stars, and to measure the greatest height to which it ascends above the horizon and the lowest altitude to which it declines about twelve hours later. The former of these is as much above the Pole as the latter is below it, so between them we are able to ascertain the altitude of the Pole with a high degree of accuracy. It is true that in a fixed observatory such as Greenwich there is no visible sea horizon, and even if there were it would not provide so excellent a method as is offered by the equivalent process of first observing the star directly and then observing its reflection from a dish of mercury. In this way the altitude of the star above the horizon is determined with the utmost precision. The practical astronomer will, however, remember that, of course, he has to attend to the effects of atmospheric refraction, which invariably shows a star higher up than it ought to be. This can be allowed for, and in this way the latitude of the observatory is ascertained with all needful accuracy. When the

highest degree of precision is sought for, and it is only observations with a very high degree of precision which are available for our present purpose, a considerable number of stars have to be employed, and very many observations have to be taken at different seasons of the year, so as to eliminate as far as possible all sources of casual error. When, however, due attention has been paid to those precautions which the experience of astronomers suggests, the result that is obtained is characterized by extraordinary precision. How great that precision may be I must endeavor to explain. The latitude of every important observatory is obtained from a large number of observations, and it would be unlikely that it was more than one or two tenths of a second different from the actual mean value. Now a tenth of a second on the surface of the earth corresponds to a distance of about ten feet, and this means that the latitude of the observatory or, as we must now speak very precisely, the latitude of the centre of the meridian circle in the observatory, is known to a degree of precision represented by a few paces. It will thus be seen that, with the accuracy attainable in our modern observations, it would often be an appreciable blunder to mistake the latitude of one wall of the observatory for that of the opposite wall; in other words, we know accurately to within the tenth of a second, or within not much more than the tenth of a second, the distance from the centre of the transit circle at Greenwich down to the earth's Equator. But, of course, the distance from the Pole to the Equator is  $90^\circ$ , and this being so it follows that the distance from the North Pole of the earth to the centre of the transit circle at Greenwich Observatory has been accurately ascertained to within one or two tenths of a second. If any change took place in the distance between the Pole and the meridian circle at Greenwich, then it must be manifested by the changes of latitude. We shall now be able to understand how any movement of the Pole, or rather of the position which it occupies in the earth, would be

indicated at Greenwich. Suppose, for instance, that the Pole actually advanced towards Great Britain, and that it moved to a distance of, let us say, thirty feet, the effect of this would be to produce a diminution of the distance between the Pole and Greenwich, that is to say, there must be an increase in the distance from Greenwich to the Equator. This would correspond to a change in the latitude of Greenwich; that latitude would diminish by three-tenths of a second, which is a magnitude quite large enough to be recognizable by the observations I have already indicated as proper for the determination of latitude. A shift of the Pole to a distance of sixty feet would be a conspicuous alteration announced in every observatory in Europe provided with instruments of good modern construction.

Until the last few years there was not much reason to think that the pole exhibited any unequivocal indications of movement. No doubt, displacements resembling those which have now been definitely ascertained have existed for many years, but they were too small to produce any appreciable effect, except with instruments of a more refined description than those with which the earlier observatories were equipped. It was obvious that the Pole did not make movements of anything like a hundred yards in extent; had it done so the resulting variations in latitude would have been conspicuous enough to have obtained notice many years ago. The actual movements which the Pole does make are of that small character which require very minute discussion of the observations to establish them beyond reach of cavil. There is, however, one striking method of confirming such observations as have been made which leaves no doubt of the accuracy of the results to which they point. Suppose, for instance, that the great observatories in Europe indicate at a certain time that their latitudes have all increased; this necessarily implies that the Equator has receded from them, and that, therefore, the North Pole has

approached Europe. If, however, the North Pole has approached Europe it must have retreated from those regions on the opposite side of the world — say, for instance, the Sandwich Islands. Observations in the Sandwich Islands should, therefore, indicate, if our reasoning has been correct, that the Pole has retreated from them, and that the Equator has, therefore, advanced in such a way that the latitudes of localities in the Sandwich Islands have diminished. The various observations which have been brought together by the diligence of Mr. Chandler, including those which he has himself made with an ingenious apparatus of his own design, have been submitted to this test, and they have borne it well. The result has been that it is now possible to follow the movements of the Pole with a considerable degree of completeness. Professor Chandler has tracked the Pole month after month, year after year, through a period of more than a century of exact observations, and he has succeeded in determining the movements which this point undergoes. Let me here endeavor to describe the result at which he has arrived.

In that palæocrystic ocean which Arctic travellers have described, where the masses of ice lie heaped together in the wildest confusion, lies this point which is the object of so much speculation. Let us think of this tract, or a portion of it, to be levelled to a plain, and at a particular centre let a circle be drawn the radius of which is about thirty feet; it is in the circumference of this circle that the Pole of the earth is constantly to be found. In fact, if at different times, month after month and year after year, the position of the Pole was ascertained as the extremity of that tube from which an eye placed at the centre of the earth would be able to see the Pole of the heavens, and if the successive positions of this Pole were marked by pegs driven into the ground, then the several positions in which the Pole would be found must necessarily trace out the circumference

of the circle that has been thus described. The period in which each revolution of the Pole around the circle takes place is about four hundred and twenty-seven days; the result, therefore, of these investigations shows, when the observations are accurate, that the North Pole of the earth is not, as has been so long supposed, a fixed point, but that it revolves around in the earth, accomplishing each revolution in about two months more than the period that the earth requires for the performance of each revolution around the sun.

The discovery of the movement of the Pole which I have here described must be regarded as a noteworthy achievement in astronomy, nor is the result to which it leads solely of interest in consequence of the lesson it teaches us with regard to the circumstances of the earth's rotation. It has a higher utility, which the practical astronomer will not be slow to appreciate, and of which he has, indeed, already experienced the benefit. There are several astronomical investigations in which the latitude of the observatory enters as a significant element. Latitude is, in fact, at every moment employed as an important factor in many astronomical determinations; to take one of the most simple cases, suppose that we are finding the place of a planet in the observatory, we deduce its position by measuring its zenith distance, and then to obtain the declination the latitude of the observatory has, of course, to be considered. Now, astronomers have hitherto been in the habit of accepting the determination of their latitude which had been established by a protracted series of observations, and treating it as if it were a constant. This method will be no longer admissible when astronomical work of the highest class is demanded. No doubt, from the sailor's point of view, an alteration in latitude which at most amounts to a shift of sixty feet, not a quarter, perhaps, of the length of his vessel, is immaterial. But in the more refined parts of astronomical work these discoveries can no

longer be overlooked; indeed, Mr. Chandler has shown that many discrepancies by which astronomers had been baffled can be removed when note is taken of the circumstance that the latitude of the observatory is in an incessant condition of transformation in accordance with the law which his labors have expounded. It will ere long be necessary in every observatory where important work is being done to obtain for every day the correction to the mean value of the latitude, in order to obtain the value appropriate for that day.

There are also other grounds of a somewhat profounder character on which the discoveries now made are eminently instructive. Those who are interested in the physics of our globe often discuss the question as to whether the internal heat, which the earth certainly possesses, is sufficiently intense to render the deep-seated portions of our globe more or less fluid. On the other hand, the effects of pressure, especially of such pressures as are experienced in the depths hundreds and thousands of miles below the surface, must go far to consolidate the materials to form what must be sensibly a rigid body. The question, therefore, arises, Is the earth to be regarded as a rigid mass, or is it not? The phenomena of the tides had already to some extent afforded information on this subject, and now Mr. Chandler's investigation adds much further light, for it is certain from his result that the earth cannot be a rigid body. It is quite true that, even though the earth were rigid, the Pole might go round in a circle, and that circle might have a thirty-feet radius, but in such a case the period would be only about three-quarters of the four hundred and twenty-seven days which he has found. In the interest, therefore, of the theoretical astronomer, as well as on the other grounds which I have set forth, Mr. Chandler's investigations must be regarded as a most important contribution to modern astronomy.

ROBERT S. BALL.

From Longman's Magazine.

#### DISCIPLINE.

"A HAMPER for M. le Curé."

"Bien! Be good enough to open it, Suzanne."

Suzanne did as she was told. M. le Curé, in soutane, sat at his desk, awaiting this new revelation. He had great faith in the unseen—as regards parcels.

"Oh, monsieur, v'là le beau din-don!"

She had extricated the turkey from the hamper, and was now holding it up for admiration by the legs. The turkey could not but hang its head. If it was the moment of Suzanne's triumph, it was also the moment of the turkey's humiliation. Life is an uneven balance; the elevation of one scale means always the depression of the other.

M. le Curé got up with dignity. He was short and stout, with small eyes, and plump cheeks, and thick lips, and a treble chin. Had he not been a priest, you might have fancied that he was a little sensual. But he had forsworn the world. Still, there is something interesting even to a priest in a turkey at Christmas time. He went up to the bird still pendent from the hand of Suzanne. He even went so far as to apply his thumb and forefinger to the breast—not an eager pinch, but one calm and critical, such as became a man of his profession.

"A plump bird, Suzanne, eh?"

For a moment Suzanne was enthusiastic. It was a turkey of a thousand. She might have seen larger—yes, that was quite possible—but never, no never, a plumper one. Would M. le Curé put himself to the trouble to notice the depth of flesh upon the breastbone?

She held the bird up higher as she spoke. Then, all at once, a change came over her expression.

"We will have it on Christmas day," said the curé, and his eyes twinkled.

"Mais, M. le Curé—" began Suzanne, a little timidly.

"Well, what is it?"

"It has, perhaps, been a little long on the way," said Suzanne.



"You mean it will not keep?"

"It would be perfect if M. le Curé would have it to-day."

"But that is impossible. It is Friday—in Advent, too."

"It will not keep till Sunday."

"Oh, dear!" said the curé. "Let me look at the label, Suzanne."

It was true. The bird had not come flying. It had apparently been missent to some out-of-the-way place, where it had remained several days, probably in some close apartment.

"It would be a thousand pities for so fine a bird to be thrown away," remarked the curé, as if to himself. Suzanne agreed with him, respectfully yet eagerly.

"And yet what is to be done?" continued the curé.

The curé was a good man, or he might have solved the problem in a moment. Or, rather, there would have been no problem to solve. But life is full of problems for good people. Others may walk straight to their object, but the good man must sit down and think the matter out in all its bearings. M. le Curé did not actually sit down; on the contrary, he walked up and down the room. Every time he came near the turkey he sniffed a little, and said to himself that the bird would certainly not keep. This was the one firm fact which he had to go upon. No, there was one other. It was a fine bird, a very fine bird, an exceedingly fine bird; its plumpness was quite remarkable. Most turkeys have a very sharp breastbone, needing sometimes, indeed, a kind of surgical operation to reduce it to a seemly level when on the table. But this turkey seemed to be all meat. Surely it must be a sin to waste a bird like this. Give it to the poor? No, certainly not! It is not good for the soul's health, even of the poor, to eat turkey on a Friday in Advent. True, they have to starve on a good many flesh-days, but you can't balance things in this way. Without a dispensation no one can eat meat on any Friday, much less a Friday in Advent. And only the bishop can grant a dispensation.

It is terrible to think what an amount of evil has been brought about by women. When the curé asked that question, "What is to be done?" he asked it in all innocence. Was Suzanne as innocent when she replied:—

"The turkey can be done, M. le Curé."

"Well, yes," said the curé, taking his three chins in his right hand and caressing them, "there can be no harm in that."

Suzanne waited to hear no more. Taking the turkey with her, she left the room. The curé returned to his desk.

"It is a curious thing," he said to himself, "that there is nothing in the Bible about turkeys." He had forgotten for the moment that turkeys came originally from America.

Then he went on with his sermon. It was about sins of the flesh, and he found it very hard work. His mind seemed all confusion. Once he even caught himself writing "the turkeys of Egypt," instead of "the flesh-pots of Egypt." This made him smile, and, when you are alone and smile to yourself, you generally mean it as a kind of dispensation from work. So he put down his pen and lay back in his great leathern armchair. Then something happened which had often happened before—he actually fell asleep. You see, with only a double chin a man gets to sleep quite easily in the afternoon, and the curé had a treble chin.

And he had a dream—the dream of a really good man—all innocence and comfort. It was the simplest dream in the world. He was merely sitting at his table, with a serviette tucked under his three chins, and the turkey was before him, and he was eating of it. That was the whole dream. Very simple, you say, but then the turkey was done to a turn.

He was just saying, "You will find some nice pickings on the back, Suzanne," when he awoke; he rubbed his eyes; he was astonished that the turkey was no longer before them, and yet—now he understood it all. The door was open, and the exquisite odor

of roast turkey pervaded the room. Suzanne was certainly cooking the bird.

The curé sighed. Life is full of disillusion. "I wish I had not awoke," he said, a little peevishly. "The dream was nicer than this. I wonder what o'clock it is." He pulled out his watch. "Dear me, it is already five."

At five the curé dined, and Suzanne was punctuality itself. At that very moment she put in her head. "M. le Curé, le dîner est servi," she said.

The curé got up and walked across the hall into the other room, his dining-room. What a delicious smell! He tried to frown.

Suzanne lifted the cover. Yes, it was true! There was the turkey, plump and brown and juicy, exhaling the most exquisite odors under his very nose. There was a terrible mental struggle. He turned at first very red—the blush that waits upon a crime; then very pale—he was forming a stern resolve; then nearly blue—this was the strangulating effect of conflicting emotions.

"Suzanne!" he exclaimed, in a tone of reproach. Oh, the Eve-like craft of the woman!

"Mais, Monsieur le Curé commanded me to cook it!"

"Cook it?—yes," answered the curé, and stopped short.

Are not ecclesiastics right in their dread of women? Is not every woman a born temptress? And the worst of it is you can never cure them. Here, for instance, had this abandoned woman been enjoying for years the advantage of living in the same house with a really good man, who had over and over again pointed out to her exactly what she ought to do and what she ought to leave undone, and yet all this did not prevent her from playing the temptress when a favorable opportunity presented itself. And the curé was so very hungry!

Nevertheless, he would not give way without a struggle. He laid down his knife and fork.

"What else is there, Suzanne?" he asked.

"But there is nothing else, M. le Curé."

"Oh," said the curé, "that is very, very wrong of you."

He felt that it was indeed very wrong; for, after all, if a man may not eat meat, he must yet eat something. He cannot nourish a treble chin on air alone.

"It is very wrong of you," he repeated.

Then, in sheer absence of mind, he took up his fork and began pricking the turkey with the prongs. Now, man is, after all, so much a creature of habit that I defy you to have a fork in your hands for more than a few seconds without the fork finding its way to your mouth; you do not consciously place it there—the hand moves mechanically. So it was with the curé.

"It was very wrong of you, Suzanne," he repeated once more.

Suzanne noticed that the wrongdoing had now been transferred to the past tense.

The fork returned mechanically to the breast of the turkey.

All at once there was a ring at the front door. Suzanne went to open it. Presently she returned, her face flushed with excitement.

"It is monseigneur!" she exclaimed. Monseigneur was the bishop.

The curé started up. Suzanne noticed that the knife was now in the dish with the fork; so much progress had been made during her brief absence.

"You have shown-monseigneur into the study? Good! I will go there at once." He paused and then added, "Apropos, Suzanne, you had better keep the door of this room shut while I am with his lordship."

He had already opened it, and was on his way to the study, when Suzanne exclaimed, "Mais, M. le Curé, will you not take off your serviette first?"

The curé looked down a little abashed. Yes, the serviette was really tucked under his chin. In his hurry he had forgotten it. But how had it come there at all when there had been nothing but the forbidden turkey before him? It was certainly rather odd.

The bishop was gracious and courtly, but he was a disciplinarian.

"I have just heard," he said, as the curé entered the room, "of a very sad case, and I thought, as I was passing your door, that I would tell you of it at once. There is no time to be lost."

"I am at the command of monseigneur," answered the curé dolefully.

"It is a workman named Le Brun and his family, who have just come into your parish," said the bishop; "Rue de la Guerre, No. 8. He has fallen from a ladder, and grave fears are entertained. I think you had better go and see him at once."

"I will go this very instant," said the curé still more dolefully. The Rue de la Guerre was at the furthest extremity of his parish. It was perhaps for this reason that the news had not already reached him.

He had said that he would go that very instant, but he did not move. The bishop looked at him a little sternly.

"There is no time to be lost," he repeated.

"I did not like to leave your lordship alone," said the curé.

"Oh, don't mind me," said the bishop, with a smile. "With your permission I may remain here till you return. I have an engagement close by a little later. By the way, could you give me a morsel of food? I have had nothing since the morning."

"Certainly, monseigneur. I will tell Suzanne at once."

"But do not delay to go to poor Le Brun," said the bishop. "Suzanne knows me, and will not mind giving me a morsel."

The curé went into the hall. Suzanne was there — there was generally something to be done in the hall when the curé had a visitor in the study. She helped her master to put on his cloak, and handed him his hat.

"Monseigneur will take a little refreshment," he murmured.

The bishop was close by, so that any private communication was impossible. Then the curé went out into the darkness, and Suzanne closed the door behind him.

The bishop suddenly turned round. In three strides he had crossed the hall, and before Suzanne knew what he was doing, he had reached the dining-room door.

"I know the way," he said pleasantly. "Perhaps you would kindly bring me a bit of bread and a glass of water."

"Mais, monseigneur —" began Suzanne.

It was too late. The door was already open. There in front of the bishop was the roast turkey, still uncovered, and generously diffusing all around it an appetizing odor.

The bishop almost started at the spectacle. What! One of his clergy feasting in this way on a Friday in Advent! It was intolerable. Such enormities might pass unheeded amongst Protestants, with whom there was no discipline, but in his Church it was different. He bore a sword, and he would not bear it in vain.

He looked round. Suzanne had fled, fearing perhaps to be excommunicated on the spot.

"*Dux femina facti*," said the bishop to himself. "I fear she is a bad woman. A turkey in Advent! It is strange how many women are wicked at heart."

Then he drew closer to the table and noticed the knife in the dish, and the fork still sticking in the turkey's breast.

"Arrested in the very act!" he said; "*in flagrante delicto*. But not a mouthful eaten. That I should have come at that exact moment when he was on the very verge of the precipice!"

He sat down, struck by the strange fatality of the affair. There was bread upon the table almost under his hand. He began to crumble it. Then he put a little into his mouth. He was hungry — he had had nothing since the morning. The bread he was taking excited the salivary glands and made his appetite yet keener. He wondered whether Suzanne was going to bring him anything. He had spoken of bread and water, but in his mind there had been the vision of an omelette. An omelette is innocent at any time, and yet it is

tasty and nourishing. But there was no sign of Suzanne, and consequently no sign of an omelette.

"I shall be fit for nothing at this rate," said the bishop to himself very sternly. "I feel positively fainting. I shall not be able to get through my work."

And still the turkey steamed before him, and every exhalation was a fresh testimony to its succulence. Poor, neglected bird! It seemed to provoke the knife of the carver—to implore the attention of some kindly eater.

At last the bishop was so much disgusted with things in general that he plucked the fork out of the creature's breast. What business had one of his clergy ever to have stuck it in? Discipline must be maintained, especially in his diocese. He must give the curé a lesson—but how?"

"It is Rousseau," he said to himself, "who advocates the doctrine that in education all punishment should be the natural consequence of the fault committed. In this case, for example, I suppose he would say that this man's fault would be most properly punished by some one else eating up the dinner he had criminally ordered to be prepared for himself. It is a pity Rousseau was an infidel, for there is certainly something in his theory."

"Yes," he repeated, "there is certainly something in it. But it could not be carried out in this case without a certain sacrifice on the part of some one else. And who is there to make the sacrifice?"

Rapt in meditation, he bent forward across the table, as if he would consult the turkey itself confidentially on the subject. The odor that the bird sent forth was indescribably delicious. The bishop sighed.

"Some one, it is clear, must make the sacrifice," he said. "If there is anything wrong in it the guilt must rest on the original transgressor."

He took up the carving-knife and felt the edge with his thumb. It was very

keen. The turkey, it was clear would not be able to resist it for a moment.

"Yes, on the original transgressor," repeated the bishop; "it is through him alone that this complication has arisen."

Then he took up the fork.

"There is no one else to do it," he said; "it has been forced upon me. It would be wrong on my part to let him escape the natural consequence of his error. Discipline must be maintained. I alone in this diocese have the power to grant a dispensation, and I hereby grant it—to myself."

There was a half-bubbling, half-hissing sound as the trenchant blade made a deep incision in the turkey's breast; then there was a slight clatter of the knife and fork upon the plate as the bishop began the sacrifice. He ate slowly and sternly; he was discharging a duty, and he discharged it conscientiously. The dining-room door was still open, and Suzanne, peeping from the kitchen, glimpsed the solemn scene.

At the end of a quarter of an hour the bishop rose from the table, looking sterner than ever.

"I cannot eat it all," he said to himself, "but I have done my best. I have at any rate succeeded in reducing the temptation. The choicer morsels are now removed. I think the legs are probably tough."

Then, without summoning Suzanne, he made his way into the hall and let himself out at the front door.

Half an hour later the curé returned. "Has monseigneur gone?" he asked.

"Monseigneur has gone and has taken the turkey with him."

"Taken the turkey with him?"

"Most of it," said Suzanne. "He has eaten it. Is it not very wicked?"

"No," said the curé sadly, "a bishop can give himself a dispensation."

"O, what a pity M. le Curé isn't a bishop! It was such a beautiful bird."

Was!

ROY TELLET.

From Cassell's Saturday Journal.

WHAT PARLIAMENTARY WHIPS HAVE TO DO.

CHIEF of the government whips, the Right Hon. Edward Marjoribanks, is credited with an "iron constitution," and he needs it. A whip has most onerous responsibilities, and they are not diminished when the majority of his party is a slender one, and possibly might be swept away by a catch vote. An instance of the vigilance which the government whip must be prepared to exercise was to be noted recently, when Mr. Gladstone's majority was temporarily, on a division, reduced to thirty-one by the action of one of his own supporters, Dr. Hunter, who opposed the proposals of the premier with the object of limiting the debate on the Home Rule Bill to Tuesdays and Fridays, and obtaining a day for the discussion of the payment of members. On that occasion—the evening of February 27—Mr. Marjoribanks might have been seen in close consultation with the leader of the House of Commons, rapidly calculating the strength of his available forces and that of the enemy, hurriedly making sure of the support of the Irish allies, and fetching up every Radical from below the gangway. The numbers, after the members returned from the lobbies, were very close indeed, but justified the principal whip's forecast. Mr. Marjoribanks possesses tact, energy, and good temper, and has always been popular. In 1885 he was appointed controller of the household—an office associated with "whipping;" but when the members of the present government were in opposition, his chief was Mr. Arnold Morley, who, as whip to the Liberals, was considered a martinet of severe demeanor, and very "stand-offish" even to his friends.

Curiously enough, the Right Hon. A. Akers-Douglas, the chief Tory whip, is regarded by most press men as unapproachable also, although he has been called the "antithesis" of Mr. Arnold Morley. He distinguished himself greatly by the majority of ninety-two on the Local Government Bill; but in

1890, on Ascot day, he lost control over the younger Tories, who tarried on the racecourse and nearly sacrificed the Compensation Clause to the Local Taxation Bill, which was only saved by four votes. Mr. Akers-Douglas remains chief Tory whip in the House of Commons, one of his juniors being Lord Arthur Hill, whose wife is the composer of many patriotic—or political—songs. He was controller of the household during Lord Salisbury's administration. The second Conservative whip, however, is Sir William Walrond, Bart., who has twice acted in a similar capacity when junior lord of the treasury under the late administration. He has been in the Grenadier Guards, and is often absent from the House. Mr. Austin Chamberlain and Mr. H. T. Arstruther share the duties of Liberal Unionist whips. The former models himself upon his father, Mr. Joseph Chamberlain, even to the eye-glass and orchid. The latter was second whip to his party in the late Parliament. On the Liberal side the second whip is Mr. T. E. Ellis, at one time, by some, called the "Parnell of Wales," and who is so national a Taffy that he makes his speeches in Welsh. He also writes for the Welsh press. Next to him in rank is Mr. R. K. Causton, who is highly esteemed for his genial manners; and the fourth government whip is "Bobby" Spencer, as the Hon. Charles Robert, half-brother to Earl Spencer, is familiarly called in these latter days, his former nickname, "Bradlaugh's Baby," having been dropped.

Between the respective whips there is frequently much negotiation; for example, the time of rising on the Thursday preceding Good Friday was the result of such consultation. Only the chief whips are in the confidence of their leaders. The juniors merely carry out instructions. On the government side the chief whip is also chief patronage secretary to the treasury—a very important office. In the absence of the ministers on particular bills he takes charge of the orders of the day, and he is usually one of the tellers in great political divisions. A whip, in the ex-



ercise of his duties, must have a profound knowledge of human nature. He is responsible for making and keeping a House, and preventing a "count out" when it is not desired. The two junior lords of the treasury who generally assist him are expected to possess unlimited powers of persuasion in keeping the sheep within the fold on critical occasions. They stand at the exits to the House, and no member of their party can escape their watchful eye. If an M.P. wishes to dine out, or to attend some private gathering or public meeting, he has to "pair," or gain permission of the whips, who give him liberty for so long, and he is obliged to say where he may be found at a certain hour. On an emergency a messenger will be despatched for the wandering M.P., to bring him from his dinner-table, his club, the theatre, opera, or wherever he may be. The whip has to cajole, to promise favors to come, to smooth ruffled feelings, and to talk over the wavering ones—all with the view of swelling the numbers of his party on a division, knowing full well that similar tactics are being energetically pursued on the opposite side.

On the occasion of set divisions of paramount importance the leaders of the several parties issue written whips

or circulars to their supporters, "earnestly" requesting their attendance. Sir Wilfrid Lawson has explained the meaning of the underlining of the word "earnestly." If there is no dash it means that there is important business which may or may not come on that night; if there is one stroke under the "earnestly" it means that the recipient ought to attend; if the word is doubly underlined, it means that the member should come to the House of Commons; if there are three strokes, it implies that he must come; and if there are four, it is as good as saying, "Come, or stay away at your peril." Private members sometimes issue similar "whips." In big divisions the chief whip on each side is generally assisted by one of his juniors. It is the duty of the leading whips to act as tellers, and in the House of Commons their votes are not recorded, but in the House of Lords they are. The tellers announce the figures after the division. A government whip in due time obtains his reward. Mr. Arnold Morley is postmaster-general, and Mr. Cyril Flower, who shared with the right honorable gentleman the duties of whip to the Liberals when in opposition, is now elevated to the peerage under the title of Lord Battersea.

**LEAD POISONING IN IRON WORKS.**—The *British Medical Journal* publishes a communication from Dr. Fray Ormrod drawing attention to the occurrence of lead poisoning among men engaged at blast furnaces, in which that peculiar form of cast iron which goes by the name of "Spiegeleisen" is produced. This is largely used in the Bessemer process for the manufacture of steel, and is got from a considerable variety of ores, some of which are apt to contain an admixture of lead. When this flows from the furnace, either with the slag or with the reduced metal, it becomes oxidized, and rises in a dense yellowish-white fume, containing 64.5 to 74.5 per cent. of lead oxide. This is very poisonous, and to it the men who are engaged at the "slag

holes" are exposed during almost the whole of their working day, and those on the "pig beds" at the time of casting, that is every four or five hours. All these men are apt to suffer from lead poisoning, often suddenly and severely. After a three weeks' holiday it was noticed that four men were soon disabled: A., after working seven shifts, B. and C. three shifts each, and D. four shifts. Some men have been laid up, for a fortnight at a time, at least a dozen times in two years. Obviously the men engaged at these furnaces are exposed to even greater dangers than ordinary lead workers, in consequence of the much greater tendency of the metal to volatilize at the higher temperature required for the reduction of the iron.